THE GREATEST GAMES

The 93 Best Computer Games of All Time

Your guide to extraordinary adventures, hair-raising simulations, and all the best electronic games.

Dan Gutman and Shay Addams

A **COMPUTE!** Book

$9.95

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Foreword

Computer game playing has come a long way since the days of *Pong*. Today, you're faced with a multitude of nasty enemies, unseen dangers, and impossible puzzles when you sit in front of the screen. It's a bit more complicated than simply blipping a square of light back to your opponent.

The task of selecting worthwhile computer games has become just as complex. In the 14 years since *Pong*, hundreds of computer games have been introduced. Not all are worth playing. A few, in fact, are awful. But some are truly excellent.

The Greatest Games: The 93 Best Computer Games of All Time reviews those outstanding computer games. Dan Gutman and Shay Addams, former editors of *Computer Games Magazine*, have collected the best-ever computer games and given you comprehensive reviews of each. It's all here in one package. You'll find out what makes *Jumpman* an excellent ladder game, and why *The Witness* is such a superb mystery game. How to play *Rescue on Fractalus*, and why *Ballblazer* is so dazzling graphically.

Eighteen game categories are covered, from sports games to games that really fit no category. War games, driving games, maze games, adventure games, rescue games, and shoot-em-ups are just some of the kinds of computer games included. You're treated to lively discussions, concise examples of gameplay, and the strengths and weaknesses of each game. Game versions are also noted so that you'll know what games run on what computer systems. And you'll have all the manufacturers and their addresses at your disposal.

The Greatest Games surveys a complete computer game library. All 93 games are excellent examples of how a computer can entertain, and even educate. Making your buying decisions easier, *The Greatest Games* gives you a state-of-the-art Software Hall of Fame.
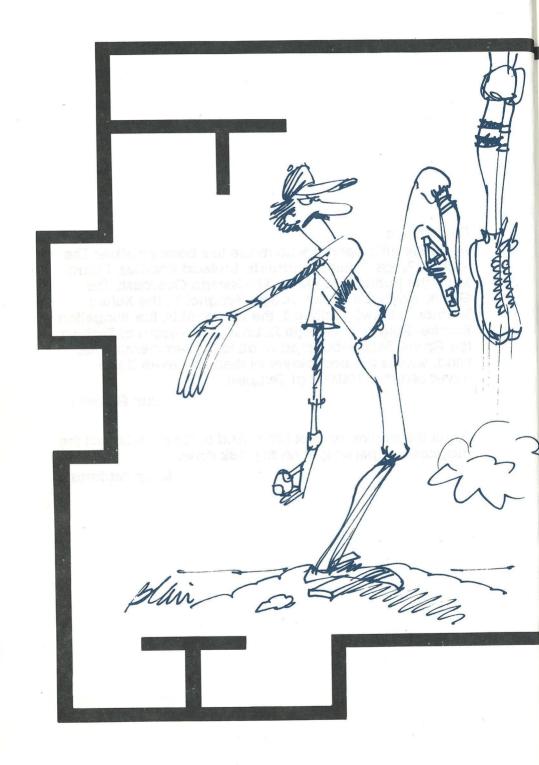
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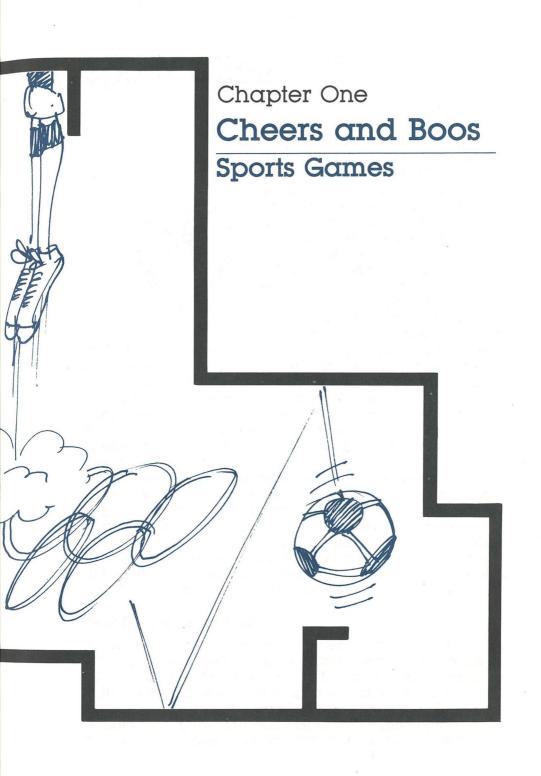
To all the little people who made this book possible: The Mutant Progs, Kinetic Androids, Undead Kobolds, Lizard Man, the Bizlings, Ant-Men, Wadsworth Overcash, the Gruds, Floyd the Robot, Jaggis, Brognoids, the Xuluui Warriors, Dimwit Flathead, the Humanoids, the Bungeling Empire, Rotgrubs, George Robner, The Wizard of Frobozz, the Grues, Zerks—but most of all to my wonderful wife, Nina, who is the best player of them all, even if she never reaches 100,000 at *Tempest.*

<div align="right">Dan Gutman</div>
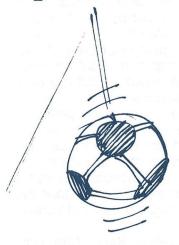
To all the above, except Nina. And to Cindy, who put the magnetic paperweight on my disk drive.

<div align="right">Shay Addams</div>

Cheers and Boos

Sports Games

Sports Games

Sports simulations may be the toughest kind of game to program on a computer. While the creator of *Space Invaders* had complete freedom to invent any scenario he could dream up, the guy who designed *Star League Baseball* had to make his game look just like real baseball.

If a game is based on a real sport, it *has* to resemble real life. A baseball diamond has to be shaped like a diamond and it has to have nine fielders on it that move independently. You must be able to throw the ball from any one player to any other. There has to be a batter who looks like a batter, swings like a batter, and runs the bases like real batters do. The traditional and complicated rules of baseball must be adhered to. That's a lot to ask for. Imagine having to program a computer to comprehend balks, ground rule doubles, and the infield fly rule. Don't even talk about football!

Computer sports games are still in the Mesozoic period. While the games on the following pages are fun to play and are outstanding compared with sports games of a few years ago, none of them comes close to duplicating real-life games. It could be that we'll never be able to truly simulate sports in a computer game. Or maybe the game designers just haven't figured out how to do it yet. These games are the best we have—right now.

Star League Baseball

If the all-American pastime is ever replaced by a computerized version of the game, here's the one we'll use to play the World Series. It offers a unique angle-of-view, as though you're looking down at the diamond from a seat high in the stands behind first base. The remarkable animation and responsive action of the stick-figured teams, one in yellow, the other in white, definitely

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guarantee *Star League Baseball* a place in the Software
Hall of Fame. It has a rousing two-player option, but it
can also be played against the computer.

Playing solo, you can take advantage of the batting
practice mode to improve your swing and ability to read
the ball, or take on the computer in a game. But the real
fun is in going head-to-head with someone else. Both
players have their own joysticks (except in the Apple
version, where one player uses the keyboard, the other
the joystick). To pitch, you press the fire button twice. The
pitcher goes into a crouch. Keep the button depressed,
then shift the stick to select a pitch. The direction in which
you point the stick, any of the usual eight, determines the
kind of pitch. Fast balls, high balls, knucklers, and screw-
balls are only a few of the choices.

You can pick one of three pitchers—"Heat" Muldoon,
"Curves" Cassidy, or "Knuckles" Flanagan—at the outset
of the game. Each excels at particular pitches and will
have one or two in his arsenal that the others lack. Jab
the button again and the ball goes blazing across the
plate. (Unless you want to try to pick off a runner—
accomplished by releasing the button, yanking the stick
in the proper baseplayer's direction, and hitting the fire
button.) Another realistic touch: Both pitchers start wear-
ing out by the seventh inning stretch, when you can
bring in a relief pitcher from the bullpen.

Batting, which requires a simple press of the button,
looks easy. But it takes quite a few trips to the plate
before you can spot the difference between a screwball
and knuckler, even more to master the timing necessary
to smack the ball into the stands. The ball's shadow pro-
vides a clue as to its height and whether or not it's in the
strike zone. Bunting is also possible.

When you do manage to get a piece of the ball, the
batter automatically heads for first. You can't speed
him up, so it's vital to target your hits for the outfield to
avoid being thrown out. The outfielder nearest the ball
becomes actively controlled by the defense, and you can
move him to snatch the ball from the ground, sometimes
even snag a fly by running toward the ball's shadow at
precisely the right moment. The player with the ball can
throw it to any other player with a simple two-step joy-

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stick maneuver that becomes second nature after a couple of games. You can always tell who's got the ball, because he'll be black rather than his team's color.

Runners already on base won't move to the next base until the offensive player jerks the joystick to the right. This allows a reasonable degree of control over base running. You can also lead off to get a good start, and even steal a base if you've got the nerve and if the pitcher's too involved in deciding what to throw next. But this is suicide against the computer, which will nail you nearly 99 percent of the time. It's authentic elements like this that make the two-player version so exciting and bring out the the finest in baseball competition. Excellent sound effects, from the crack of the bat to the roar of the crowd when the bases are loaded, enhance the action. Get a good box seat, buy a program, and break out the hot dogs for this one!

> **Compatibility:** Apple II, Atari, Commodore 64, Commodore 128, Macintosh
> **Format:** Cassette (Atari, 64, 128), Disk (Apple, Macintosh)
> **Manufacturer:** Gamestar, Inc.

One-on-One

The general rule with computer sports games is that you try to create a near-perfect simulation of the sport, putting two equally capable teams on the field. This way, neither team has an advantage, so the skill of the players determines the outcome. When Lucasfilms was creating *Ballblazer*, George Lucas suggested having two different-looking opponents on the field, but the design team convinced him that identical opponents would make the contest seem more like an even match.

One-on-One is one of the few sports games to break this rule—and it's one of the best computer sports games around. This is a basketball game between computerized versions of two real-life NBA superstars, Julius ("Dr. J") Erving and Larry Bird. In real life, these players have certain strengths and weaknesses. Bird is a bigger and stronger man, a better rebounder, and more intimidating

on defense. He also shoots better from the outside. Dr. J is quicker. He drives faster to the basket, makes fancier moves, and he can hang in the air longer on a jumpshot.

These qualities are reflected in the game. The computer knows both players' shooting percentages from all over the court. To succeed at *One-on-One*, you have to do more than just play good basketball—you have to take advantage of Bird's and Erving's natural abilities. This makes *One-on-One* more realistic than most other sports games.

O ne-on-One is more realistic in *every* way. The players are not anonymous blocky shapes. They look like people, right down to Bird's red hair. They move like real ballplayers, too. The flicker-free graphics and character animation are more advanced than just about any game on the market. Designer Eric Hammond even had room to throw in a few flourishes—sometimes when you drive in for a slam dunk, the entire backboard shatters and falls to the court. A little hi-res janitor comes along and sweeps it up. There's also a referee who charges out now and then to call fouls.

The game pays attention to some of the subtle characteristics of real sports which are often ignored by other computer games. Two bars at the bottom of the screen indicate the players' fatigue levels. When they get tired, their speed and precision start to deteriorate, just like in real basketball. The players are also programmed to hit occasional hot streaks, when just about any shot goes in the hoop. Another innovation is the computer game instant replay—when you make a particularly fantastic move, the computer shows it to you again.

You want options? This game gives you options. You can be Larry Bird or Dr. J. You can play against the computer or against a human opponent (always more fun). You can play street ball (not many fouls called), varsity, college, or pro (24-second clock and tight rules). The winner or the loser can take the ball out. You can play until somebody gets 21 points or until the clock runs out. You can even set the time limit. You can make jump shots, rebounds, hack your opponent, call timeouts, steal the ball, and protect the ball with your body.

Like all computer games—especially sports games—
One-on-One has certain limitations. Obviously, there are
just two players on the court, not ten. You can only play a
half-court game. You don't dribble the ball; that's done
automatically. Perhaps the biggest flaw is that you can't
control the path of the ball when you shoot it. You just
push the fire button twice and it heads for the rim.
Whether it goes in or not is simply a matter of the
percentage of the time the real Dr. J or Bird would have
made the shot. Apple owners have another problem—
unless you have an adapter for two joysticks, the player
on defense has to use the keyboard.

Still, the game is an outstanding sports simulation.
One question to think about—will anyone really care
about being Dr. J or Larry Bird a few years down the line
when their playing days are over?

Compatibility: Apple II, Atari, Commodore 64, IBM PC, IBM PCjr,
Macintosh
Format: Disk
Manufacturer: Electronic Arts

Summer Games

While the regular Olympics are plagued by cheap
commercialism, boycotts, and terrorist attacks, you
can still enjoy the peace and brotherhood of athletic
competition in the comfort of your living room. The 1984
Olympics inspired several multievent, decathlon-type
games, and *Summer Games* is the best of them.

Here's the wide range of events you'll be competing in:

Pole vault. The bar is set at four meters (13 feet). You
select a high, medium, or low grip on the pole. Your man
runs into the picture automatically, and you've got to
time when to plant the pole and when to let go of it. If
you succeed, the bar moves higher.

Diving. You've got to complete four dives (forward,
backward, reverse, and inward) from 30 feet above the
water. The joystick controls body position and rotation
speed. You want to hit the water vertically with your feet
or head. Seven judges hold up cards rating your form.

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400-meter relay. Your four runners have different running styles. Runner 1 can't regain energy as fast as runner 4, and runner 2 runs out of gas faster than runner 3. You must race your team as fast as possible, while pacing them so that they don't get exhausted.

100-meter dash. This time you sprint flat-out. The faster you jiggle the joystick back and forth, the faster your man runs. This one may rip your arm out and bust the joystick.

Gymnastics. You're a young woman with a ponytail. Leap on the springboard to the horse, do a few fancy turns in the air, and land gracefully. It's also fun to try to land her on her head.

Freestyle relay. Hitting the fire button at the same time as your swimmer's hand hits the water gives him a power stroke that moves him faster. You also control kick turns and the timing of dives for your relay team.

Skeet shooting. Clay pigeons shoot out from the left and right sides of the screen. Starting at eight different positions, you move a circle and try to position it over the flying pigeon and hit the fire button. Very tough.

Putting so many events into one game is no small task. Each event takes up a lot of memory. Nevertheless, all the events in *Summer Games* are rich in detail and color. The figures are not the blocky, computerized images of a few years ago. These athletes look human. The runners move their legs realistically and the swimmers even splash the water when they kick. Though none of the events is good enough to make a game by itself, together they add up to a good time—especially if you have a group of crazed sports fans in front of the screen. (Up to eight players can compete.)

The seven designers of *Summer Games* not only crowded eight events into the program, but they also went out of their way to simulate the grandeur of the Olympics. There's a gorgeous opening-ceremonies screen where doves fly away and a runnner lights the Olympic torch. After that, you type in your name and choose which of 17 nations (plus Epyx) to represent. The nation's flag is shown and the actual national anthem is played.

The attention to detail is admirable. In the diving competition, for instance, the score is calculated as in the real Olympics—your highest and lowest scores are dropped and the average of the remaining scores is multiplied by the difficulty rating of your dive. And at the end of the Games, all the athletes and their nations are listed in the order they placed, with the national anthem of the winner blaring triumphantly in the background. There's also a screen displaying the world records of all events. Even if getting out of bed in the morning gets you huffing and puffing, *Summer Games* will make you feel like a champion.

Compatibility: Apple II, Atari, Commodore 64
Format: Disk
Manufacturer: Epyx, Inc.

International Soccer

International Soccer doesn't have much competition. In fact, it's the only computer soccer game we've seen. But it did beat out multitudes of hockey games, bowling, darts, and billiards contests to be included in *The Greatest Games*. *International Soccer* features good three-dimensional animation and authentic action that even soccer-hating Americans should enjoy.

While most sports games are satisfied just to approximate the sport they're imitating, *International Soccer* goes further. Commodore found the memory in its computer to include a few extra frills just for fun. For instance, the players don't just magically appear when you turn the computer on, they jog out onto the field. And at halftime (which comes too soon, if you ask us) the teams run off to their locker rooms and return seconds later, having switched sides. At the end of the game, the winning team returns to the field to receive a gold cup presented by a lovely, dark-haired beauty.

None of these added attractions is necessary, but they *are* nice touches. Naturally, after playing a few games, the novelty of these frills wears off and you wish the players would just get on with it. You can't help but

wonder if game designer Andrew Spencer might have been able to improve the gameplay had he not devoted so much computer memory to beauty queens and such. For instance, instead of bumping into each other when they run, the players in *International Soccer* run right through each other, like ghosts.

Still, the game is complete. There are six players to a team, and the way they run down the field, pass the ball, block, and kick makes it almost seem like you're watching a game on television. Players put the ball into play by throwing it over their heads, as in real soccer, and an experienced player can even head the ball downfield.

C omputer game manufacturers have yet to figure out how to control six players with just one joystick (perhaps the biggest drawback to all computer sports games). In *International Soccer*, the joystick controls just one player, the one closest to the ball. That player then turns a lighter color than the rest of his team, so he's easily identifiable. His teammates are programmed to run in their zones. The defensive team works the same as the team with the ball—the player closest to the ball can be controlled, and he can take the ball away from the kicker. Each team's goalie will dive at the ball at the touch of the fire button.

The joystick moves the player with the ball in any direction, and the fire button causes his foot to kick the ball in the direction he's facing. The sound of foot hitting ball is a realistic "thunk," and as the ball sails downfield, it throws a shadow on the grass. You can't kick one shot hard and the next soft; each kick travels the same distance. It's to your advantage to pass the ball downfield rather than hot-dogging it yourself, because the player dribbling the ball runs slower than the others. But passing is difficult, because the screen shows only the section of the field that the ball is in. Often, the players you would like to pass to are running out of the frame.

Like most other sports games, you can play against the computer or against another player. And like most sports games, it's a lot more fun to take on a friend. Though you can set the computer to play any of nine skill levels, even at its worst, it seems to steal the ball from you all the time. As a two-player game, though, *Inter-*

national Soccer is tops. While it takes a while to learn the intricate joystick moves to throw pitches in *Star League Baseball,* even a novice intuitively knows how to chase down a soccer ball and give it a good whack. Players tend to pick up the game at the same speed, making for evenly matched and fun-filled contests. The good-natured interaction between the players always makes for a great time.

Compatibility: *Commodore 64*
Format: *Cartridge*
Manufacturer: *Commodore Business Machines, Inc.*

Ballblazer

The entrance of George Lucas and Lucasfilms into the computer field introduced some excitement and innovation. It was only natural that the people who created *Star Wars, The Empire Strikes Back,* and *Return of the Jedi* would have something to say about computer games.

    Ballblazer is one of the few games that make passersby stop and gaze at the screen with wonder. The graphics are remarkable, not in their detail, but in their animation. The screen is sliced in half horizontally. Above and below the line are two different views of an immense green-and-white checkerboard grid which extends into the distance. The views (one for each player) zoom back and forth the way a zoom lens does, giving the realistic appearance of moving forward, backward, and even to the side. Scattered around the grid are a floating yellow ball, two standard computer game rocket ships (Rotofoils), and a set of glowing goal posts. *Ballblazer* is a sports game like no other sports game in our world. It can only be described with one word: cool.

    According to instruction-book lore, it's the year 3097 and *Ballblazer* is some sort of interstellar pastime in the binary star system between Klaxon and Kalamar. Actually, the game looks something like a cross between hockey and soccer—the two Rotofoils on the grid battle for control of the ball (Plasmorb) and try to shoot it through the

opposing goal posts (Goalbeams) to score points (Points).
The views on the screen are the first-person views from
the cockpit screens of the two Rotofoils.

If it sounds confusing, it is. *Ballblazer* can't be de-
scribed with words—a still photograph of the screen
doesn't do it justice. The game has to be played to be
appreciated, and even then many players will walk
away shaking their heads. It takes awhile to figure out
what's going on—the game is foreign to us. It *is* a great
game, but it's not a good introduction to computer
games. Many people will just be confused.

A fter you get possession of the ball, for instance, it
merely hovers in front of you the way a Ping-Pong
ball would float over a jet of air. This is called your
pullfield. As you move around the grid, the ball hovers in
front of you like a big sun. You shoot it by hitting the fire
button, and it blasts off in the direction you're facing with
an incredible burst, like a rocket launching. The ball zips
off down the grid, getting very tiny in the distance. If it
goes through the goalbeams, that's a point for you. If it
doesn't, it bounces off an imaginary wall at the other end
of the grid and zooms back just as fast—for you or your
opponent to snatch up.

If the other player (or droid if you're playing against
the computer) picks up the ball, you can either play de-
fense or try to steal it by sneaking up to the side of the
other Rotofoil and shooting it out of its pullfield. That's
quite difficult—you should always rush to get possession
of the ball first. Points are scored depending on how far
you are away from the goal. If you shoot from up close
you get one point. If you sink a long shot, you get three.
Since the grid slopes slightly with the shape of the as-
teroid you're playing on, you can even score goals when
the goalbeams are beyond the horizon. To make things
more difficult, the goalbeams get closer together during
the game and also creep back and forth along the
sideline.

The music behind *Ballblazer* is an incredible syn-
thesized jazz number that makes you want to drop the
joystick and dance. It comes on between games and
after goals with a vibe-like improvised lead that fades in
and out. During the game a weird percussion plays, like
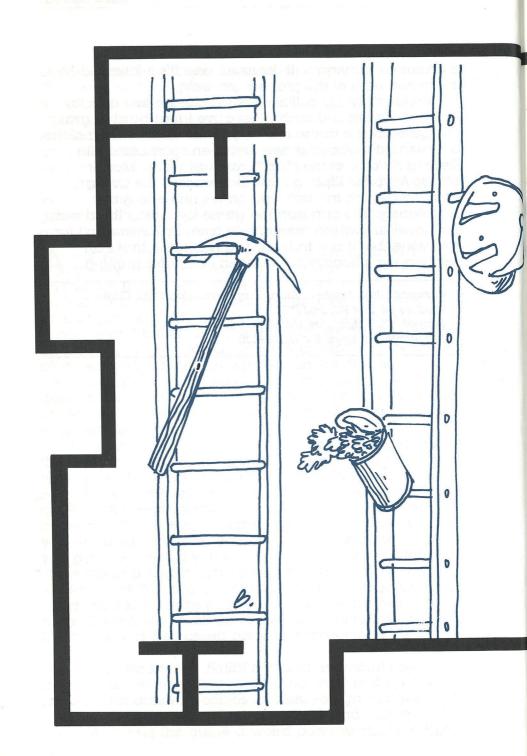
a drummer playing with brushes, and it's influenced by the movements of the players' joysticks.
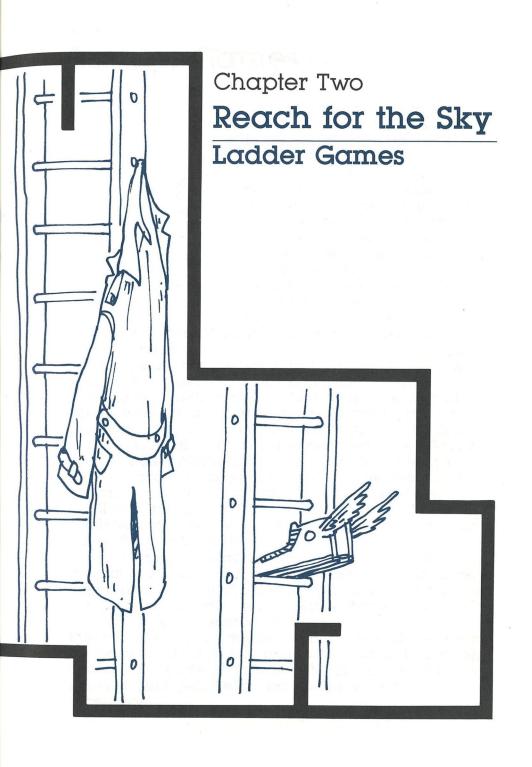
Fortunately, Lucasfilms has included a few aids for those of us who find such innovative ideas hard to grasp. The game has a demo mode, and the instructions include a hysterical mock interview between sportscaster Slan Sterling ("Voice of the Void") and last year's Masterblazer Arboster Kipling (now Governor of the Omega Colonies) which instructs you on the fine points of ballblazing. You can start the game by setting the droid skill level anywhere from one to nine. *Ballblazer* isn't for everyone, but it is a truly innovative game that's an exciting evolutionary advance in computer gaming.

Compatibility: Apple II, Atari computers, Atari 5200, Commodore 64, IBM PC, IBM PCjr
Format: Cartridge, Disk (Apple, 64, IBM)
Manufacturer: Epyx, Inc./Lucasfilms

Chapter Two
Reach for the Sky
Ladder Games

Ladder Games

As the *Pac-Man*–inspired maze game craze eventually withered in the arcades, the *Donkey Kong* phenomenon exploded. *Kong*'s instantaneous success quickly spawned dozens of knock-offs, very similar ladder games which soon became a big hit with video and computer gamers.

This makes sense. A ladder game is essentially a maze turned on its side. Instead of roaming a series of adjoining halls in search of the latest equivalent of *Pac-Man*'s little white dots, a vertical structure must be climbed.

Each ladder game has its own version of those white dots, various objects that must be touched to score points. And like descendants of *Pac-Man*'s ghosts, the inevitable enemy lurks around every corner of every ladder game, ready to chew off your head or shove you to your death from the top of the structure. (No one's yet done a Mount Everest ladder game, with Abominable Snowmen for monsters and Sherpa guides to point out the best trail to the top, but it can't be far off.) In addition to ladders, you'll find chains, ropes, and a wide variety of things to climb up and down, as well as other means of reaching distant floors of a structure.

High scores in a ladder game depend on detecting the patterns in which the creatures move, then maneuvering around them. Timing is vital, and hand-eye coordination plays an important role in games that let you leap from one level of the structure to another. If you've burned out on shoot-em-ups and have been driven stark raving mad by adventure games, try making it to the top of one of these interpretations of the genre. It may be lonely at the top of the ladder, but the view is exceptional.

Jumpman/Jumpman Jr.

J umpman's one of those "just one more time" games
that will keep you glued to your joystick for hours.
He's a diminutive figure with a simple mission: clear Jupiter headquarters of the bombs planted by Alienators.
Bombs can be defused by merely touching them, but
they're scattered all over the girders and towers of each
level—30 levels in all. Finish a level, and some bluesy
jazz or other upbeat music plays while the next level
loads from the disk.

Each level exhibits a special characteristic for which
it's named. The names even relate to a particular problem that must be solved while attempting to achieve the
main objective. The Vampire level, for instance, is cursed
with tiny bats that flap well-animated wings as they
chase you around the screen. In Gunfighter, a couple of
fast-shooting bad guys try to plant you six feet under; on
this level, you're armed and can shoot back by jabbing
the fire button.

No matter which level you're on, you'll learn to get
out of the way when a loud "crack" accompanies a little
square bullet suddenly flying from an unpredictable
direction. Sometimes a bullet will whiz right past, yet, just
as you're breathing a sigh of relief, wheel around in midair like a homing missile and head straight for you. Exotic dangers await as you advance through the levels. In
Dragonslayer, you'll have to chuck spears at a neverending line of dragons that race from the bottom of a
three-tiered structure while you move down from the top
to defuse bombs on each section.

It takes some practice, but Jumpman's one of the
most highly maneuverable characters in Ladder GameLand. He can climb up and down ropes more nimbly
than Tarzan and practically zip from the top to the bottom of the screen in a single leap. Caution is advised,
though, because Jumpman falls to a certain death if he
jumps off the screen or falls too far. At least you get five
lives, and for every 10,000 points, a bonus Jumpman. Another plus: Unlike Miner 2049er, Jumpman doesn't have
to start all over when he's killed. Bombs already defused
stay defused. Thank goodness.

C ertain options make this a superior ladder game, one we feel is decidedly better than *Miner 2049er.* You can adjust Jumpman's speed, from one to nine; the speed can be switched anytime during a game. Five variations are available. The Beginner game puts you through the first 8 levels, Intermediate through the next 10, and Advanced through the 12 trickiest ones. For hardcore arcaders, the Grand Loop cycles through all 30 levels.

Perhaps the most considerate variation is Randomizer. Ever notice that some games (like *Miner 2049er*) contain lots of levels, but they're so hard to get to that many people never even see them, let alone play them? Well, Randomizer takes care of that by randomly selecting levels and throwing them at you. Complete any of the five variations, and you get an extra treat. Jumpman, having completed his mission, hops into a little rocket that takes off and flies off through the top of the screen. A vanity board not only holds your high scores, but also includes an initial to indicate which variation you were playing. The board can be saved permanently on the game disk.

Jumpman Jr. is a sequel featuring 12 new levels and different music. It's equally challenging, and you don't have to wait for the next level to load from the disk.

Real ladder game fanatics will want both.

Compatibility: Jumpman—Apple II, Atari, Commodore 64, IBM PC; Jumpman Jr.—Atari, Coleco Adam, ColecoVision, Commodore 64
Format: Jumpman—Cassette (Atari), Disk (Apple, Atari, 64, PC); Jumpman Jr.—Cartridge (all)
Manufacturer: Epyx, Inc.; International Business Machines (PC)

Hard Hat Mack

M ost ladder games take place in admittedly bizarre backgrounds—after all, how many real-life situations involve running up and down ladders all day? Only one fits reality: building high-rise skyscrapers. The blue-collar worker in this one has his work cut out for him. In

the first level, the job consists of completing a five-story building. The red, white, and blue girders are already in place, with a single gap that needs to be filled on each of the bottom four. The appropriate pieces can be found right next to the gaps, and Mack merely has to grab one by touching it, then run over the hole to put it into place. To move to the next screen, you have to rivet the pieces into place by snaring the jackhammer and moving over the pieces while they're in place. The jackhammer has a life of its own, though, hopping hectically around the building like a pneumatic pogo stick.

Oh, did we mention the red-hot rivets that inter-mittently fly from the upper-right-hand corner of the screen? If one of these hits Mack, he's a dead man, hard hat or not. While dodging the rivets, you've also got to keep on the move to avoid the OSHA representative. In-stead of looking out for your safety, this guy's out to bust your union *and* your skull. When he takes a break, his buddy, Vandal, fills in for him. Again, you'll detect help-ful patterns that, with a bit of luck, may get you past the first level.

To facilitate taking advantage of those patterns, an elevator is provided on the building's left side. The in-stant you jump in, it shoots from the ground floor to the fourth story, or vice versa. This is a lot faster than climb-ing up and down the chains; they're essential in tight spots, though. Success depends on using the right means of climbing up and down at the right time. You can also leap onto the springboard at the building's right side, which bounces Mack to the next floor. Miss by an inch and you've got a dead Mack on your hands. (At 7000 points, you win an extra Mack, but that's all.)

If Mack gets killed on the first level, any pieces of girder not already riveted down fly back out onto the structure. But at least the riveted ones stay in place. You get points for each girder riveted down and extra points for grabbing a hammer or wrench on the top level. Time is crucial on this and following screens: A bonanza bonus is displayed at top left, and the total decreases with each passing second.

In time, you'll be able to get that skyscraper up without a single fatality. The next screen poses different problems. Mack must collect tool boxes sitting on the three girders which extend from each side of the screen. The only way to reach the girders is by riding a conveyor belt and jumping onto a girder that's constantly rising and falling in the center of the screen. If your hand-eye coordination is perfect, Mack can hop over and grab the tools. You'll have to do some scheming to get past deadly obstacles protecting several of the tool kits. OSHA's on the scene, too.

On the third screen, you'll face yet another variety of construction-oriented tasks. One of the most grisly hazards we've ever seen in a computer game awaits the clumsy beam-walker here—one false step and Mack plummets three stories into a porta-john! Dozens of additional levels await the hardy high-climber, each more intricate than the last.

The animation goes beyond stick figures, creating a cartoony feel to the action. The funniest scene occurs when Mack gets hit by a rivet while he's in midair. *Hard Hat Mack* is a fast-paced game; you can't adjust the speed. Sound plays a big part, with cheery tunes adding to the cartoony effect.

Who said games weren't work?

Compatibility: Apple II, Atari, Commodore 64, IBM PC
Format: Disk
Manufacturer: Electronic Arts

Miner 2049er

Originally designed to be an arcade game, *Miner 2049er* was turned down by the major companies. Big mistake, because *Miner*'s demanding challenges and clever animation quickly established it as one of the most popular, and best, computer ladder games. *Miner 2049er* certainly makes a monkey out of *Donkey Kong* (though many ladder-climbing pros feel *Jumpman*'s top banana in this category).

The scenario goes like this: Somewhere in the Canadian wilderness, Bounty Bob must trek through the ten levels of an abandoned uranium mine to track down a notorious murderer named Yukon Yohan. Each level must be completely secured, before moving on, by having Bounty Bob step on each section of the framework. The floor turns a different color when masked like this. Moving from one floor to the next involves climbing simple ladders and a bit of hopping about on the first level. The main obstacle is a gang of deadly mutants who pace back and forth waiting to kill Bob with a single touch. Of course, Bob also dies if he misses a leap and falls too far.

Wearing a snappy Mountie hat and looking too chubby to be climbing all those ladders, Bob can either jump over the mutants or kill them. (The animation's cartoony and cute, especially when Bob does a flying leap that looks like Steve Martin doing his King Tut dance.) Those ugly, shriveled-up mutants become vulnerable for a few seconds after Bob touches one of the apples (in the Apple version) or tools left behind by miners; then Bob can dash over and zap them. You get points for each section of the floor that's masked, for touching the apples/tools, and for eliminating mutants. A timer ticks off the seconds and beeps when you're about to hit zero, when Bob dies. After completing a level, you're awarded a bonus of points equal to 100 times the number of seconds remaining.

The first level's fairly straightforward, but the rest grow exceedingly more difficult. Their structures and arrangements vary considerably, each calling for a different type of skill. On the second level, for example, you've got to slide down several chutes to hit certain spots on the floor of various levels. Until you figure out the best sliding and masking pattern, you'll never make it past this one. While the patterns of the mutants are important to winning this game, your own patterns— determining by trial, error, and logic the most successful route for Bob to trod—are much more vital. Other hazards and aids await on higher levels.

You'll find staggered lily pads, short platforms that you must hop up and down; elevators to hasten your ascent; a tank of radioactive waste; and platforms that

slide horizontally to and fro across the screen as Bob rides them to his next jumping-off point. The ultimate challenge awaits on the tenth level: Bob must load TNT into a cannon, climb inside, and shoot himself out of the barrel in order to reach the top. Only the most dedicated, single-minded ladder gamers will get a shot at this spectacular scene.

That's because this is one tough game. You only get five Bounty Bobs—*no* replacements. And when Bob gets pulverized or zapped by a mutant, all the floor sections once masked revert to their original colors. Bob must remask the entire level from the beginning. At least you don't lose the points already scored. Other hindrances are that Bob's speed is not adjustable and there are no difficulty settings.

Deliberately designed to be a demanding game, *Miner 2049er* requires a combination of shrewd pattern detection, split-second timing, and phaser-fast reflexes before you'll attain the tenth level and nab that elusive Yohan. One or two players can compete, and current and high scores are displayed at all times. The bright colors—each level has its own scheme, which vary dramatically with the Commodore version—and sound effects keep you entertained throughout this terrifically hard game.

Compatibility: Apple II, Atari computers, Atari 5200, Coleco Adam, Commodore 64, Commodore VIC-20, IBM PC, TRS-80 Color Computer, TRS-80 Model I, TRS-80 Model III
Format: Cartridge (Atari computers, Atari 5200, Adam, 64, VIC); Disk (Apple, IBM PC)
Manufacturer: Big Five (Atari); Coleco (Adam); Micro Lab (Apple, Adam, IBM PC); Reston Publishing (64, VIC)

Spy's Demise

The streamlined design of this game's player interface does away with fancy moves like jumping from floor to floor, bouncing on trampolines, hopping, and ducking. Your spy is restricted to moving either left or right. He can reverse direction quickly, and you'll soon see why

he needs this capability. Wearing dark glasses and toting a mysterious attaché case, your secret agent looks like the "Spy vs. Spy" character from *Mad* magazine. A cross-section view of a Soviet embassy shows him stationed on the bottom floor. The only way he can ascend to the next floor is by racing horizontally across the hall and reaching an elevator at the far end. Once he's inside, the elevator promptly pops him up to the next level. Now he's got to run back to the other side and ride the next elevator to the third floor, and so on, until he makes it to the top of the 11-story building. Sounds simple, until you spy the seven elevators constantly sliding up and down the inside of the building in an irregular pattern.

Each elevator carries an embassy guard. If an elevator hits your spy, the little guy is vaporized by a nuclear bomb, complete with mushroom-shaped cloud. (In the Atari version, you'll hear a riff from the old Johnny Rivers song, "Secret Agent Man.") Images of the spy's trade, like cameras, secret dossiers, automatic pistols, and microfilm, are scattered throughout the halls, and you get points for running over them. You get more points for being fast as you move to each new floor. Running across the occasional flashing spy decoder ring is worth more points.

Spy's Demise is a one-player game, and you can use joystick, paddle, or keyboard for controls. Surprisingly, the keyboard's most effective. The nonstop musical themes, a medley of lively classical melodies, switch tune so often it doesn't get tedious. And the music can always be toggled off. The patterns on the first level aren't too difficult to figure out, but you've still got to be on your toes. With each new level, the building narrows, but there are still the same number of elevators; this makes getting across the halls much more hazardous. Even when you know the patterns, the game is tough. Often, you'll have to turn and run back, only to get caught between a pair of elevators going in opposite directions. You get five spies. The game's great fun in itself—playing is like picking up the gauntlet to try to "climb every mountain" by completing every level.

There's another good reason to beat *Spy's Demise*. After reaching the top of each level, the screen cuts to black and reveals a partially decoded message. More of the letters are filled in with each new level, but you may be able to decode the onscreen ciphers on your own by guessing the missing letters. Be the first person in your state or foreign country to unravel the entire secret message, and Penguin will send you a nifty *Spy's Demise* T-shirt.

Even without the contest, *Spy's Demise* would still rate as a first-class rendition of the classic formula for an action game: Easy to learn, hard to beat. (A sequel, *The Spy Strikes Back*, is also an excellent arcade-style game, though it requires mapping a 120-room maze in a five-story castle while outrunning robot guards, and is much more complex. Those who decipher its message can win $100 worth of software from the manufacturer.)

Compatibility: Apple II, Atari, Commodore 64
Format: Cassette (Atari 24K, 64), Disk (Apple, Atari 32K, 64)
Manufacturer: Penguin Software

Popeye

Back when computer games were just videogames, manufacturers started taking familiar titles from other media and attempted to turn them into games. In almost every case the games were strained and came off as cheap efforts to cash in on a licensed name. Atari, for instance, paid millions of dollars for the right to make a game using the E.T. character, but the resulting game captured none of the movie's charm.

Popeye was different. This computer game—based on the arcade game—based on the cartoon—fit perfectly as a post–*Pac-Man* cute game. As the story goes, you play a vulnerable, but brave, little guy (Popeye or Pac-Man) being chased by an evil enemy (Brutus or ghost) who is all-powerful unless you eat something (spinach or power pills) which turns the tables for a few seconds. It works as a game or a cartoon. There are also shades of *Donkey Kong* in *Popeye* (the original arcade games were made by the same company, Nintendo). Both of

them are ladder games that involve winning the love of a woman trapped helplessly on a structure at the top of the screen.

As in the comic strip and the cartoons, both Popeye and Brutus love Olive Oyl (which proves that looks aren't everything). Olive loves Popeye and so tosses red hearts, musical notes, and the letters *H,E,L,* and *P* from her perch at the top of a ship. As Popeye, it's your job to catch these tokens of love before they fall into the sea, while at the same time avoiding Brutus's fist, flying vultures, and bottles being thrown by the Sea Hag. Complicated. Points are awarded for each token caught.

While it looks like *Donkey Kong, Popeye* has a lot more to it and is a harder game for beginners to figure out. *Donkey Kong* forced you to climb one unchanging path to the top of the screen, but *Popeye* lets you go where you want.

There are stairs at the sides of the screen. You can stay on the top level and grab the hearts as Olive throws them. You can lure Brutus on a wild-goose chase around the ship. You can leap onto sliding platforms and bounce on seesaws, fend off a few flying bottles, and even hit a punching bag to make it knock over a bucket that then falls on Brutus's head. The best part of the game is grabbing the can of spinach and knocking Brutus across the screen with your new-found strength. While it sounds relatively violent for a "cute" game, *Donkey Kong* actually had more of a macho attitude—Mario would just bull his way to the top of the screen and physically grab his woman. In *Popeye,* you win your girl's affection the way boys have always done, by prancing around and showing off!

Like the arcade-game version, *Popeye* has three consecutive screens, each of which (as best we can figure) is a ship. They differ so much from each other that *Popeye* is actually three games in one. This home version isn't perfect, but it's very close to the original. A few things have been eliminated—the opening scene where Olive begs, "Popeye, catch!" and the earthquakelike effect of the screen shaking when you bounce Brutus off the walls.

Likewise, the characters of Popeye, Brutus, Olive, and Wimpy (in the second screen) are good, but not as good as the arcade game. You can recognize Popeye with his pipe, but it's not too clear if Olive is a human being or some kind of program bug. Brutus could pass for Ernest Borgnine. It makes a very cute, colorful screen, and when you grab the spinach you'll hear a rousing computer rendition of "Popeye the Sailor Man."
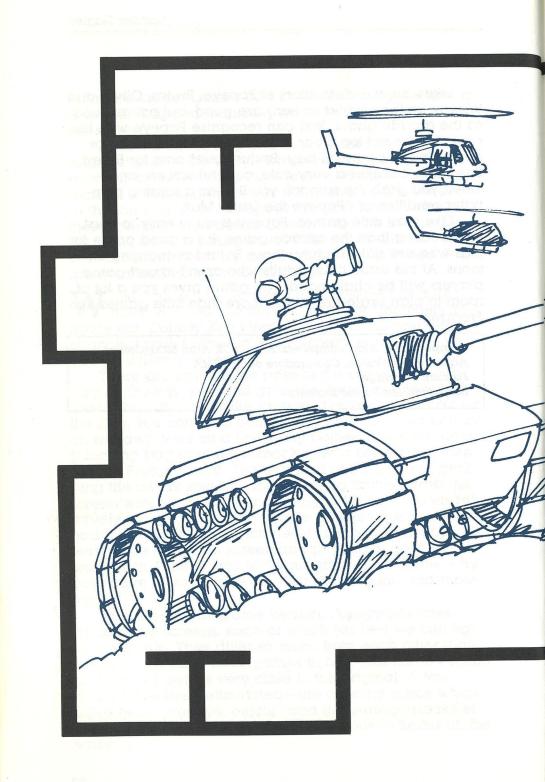
Like most cute games, *Popeye* is quite easy to beat, much easier than the arcade game. It's a good game for kids who are still watching those Saturday-morning cartoons. At the same time, adults who aren't expert game players will be challenged. The game gives you a lot of room to plan strategies, much more than cute games like *Frogger*.
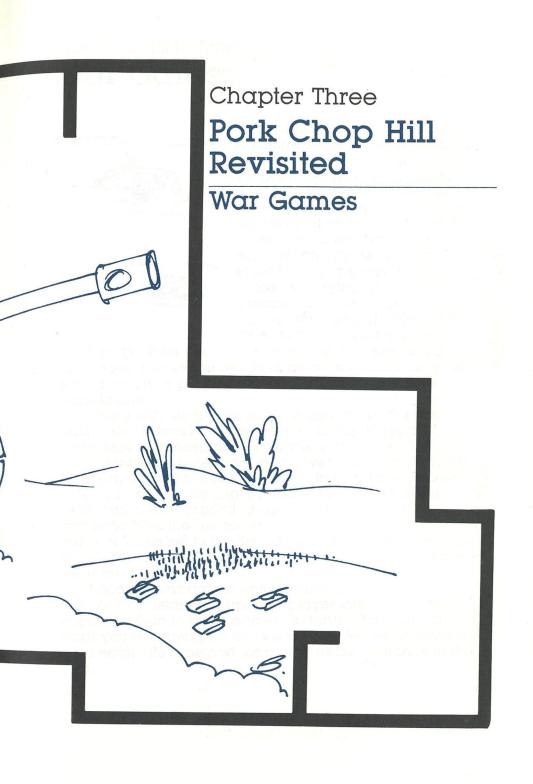
Compatibility: *Atari computers, Atari VCS, Atari 5200, Coleco Adam, ColecoVision, Commodore 64, TI-99/4A*
Format: *Cartridge*
Manufacturer: *Parker Brothers*

Chapter Three

Pork Chop Hill
Revisited

War Games

War Games

War games have been around since the 1960s, when Avalon Hill introduced a board game called Tactics II. Players commanded armies consisting of dozens of colored cardboard counters that represented infantry, tank, and other units of two fictitious nations. When opposing troops ended up on adjoining squares of the overlaying grid, battle commenced. But players had to tally up the combat points and other factors of all the units in each sortie, then roll dice and consult complex charts and tables before the results of an attack could be determined. Hours of playing time were squandered on the calculations.

That's why such games are a natural for the computer, which excels at number crunching. Players have more time to concentrate on strategy. When Avalon Hill moved into computer games, it never capitalized on the potential of Tactics II in this format. But Strategic Simulations, Inc., started turning out crack military games in 1980, and has stockpiled an arsenal of historically authentic titles that recreate every major conflict from the Battle of Waterloo to the Six Day War between Israel and Egypt. That's why two of the three games in this category wear the SSI uniform.

Because war games entail manipulating dozens of units across detailed maps, the player interface is more important than in other games. To insure that you know what you're signing up for, we've devoted extra emphasis to each title's method for giving orders to troops in the field.

Operation Whirlwind

If you've never hunkered down in a 48K foxhole before, volunteer for *Operation Whirlwind.* Joystick control simplifies manipulating your armies as they march from the left side of the map to capture an enemy city in the lower-right-hand corner. The friendly player interface, a clearly written 28-page manual, and the fact that you can move in only four directions rather than six make *Whirlwind* an excellent boot camp for raw recruits. Additionally, four difficulty levels allow you to tilt the odds in your favor until you're ready for an evenly balanced match or a suicide mission.

The two fictitious nations are shown in a window at the top two-thirds of the screen. This display scrolls to reveal a playfield three times the width and twice the height of the window. Unlike most war games, there's no grid stretching over the map; *Whirlwind* presents a more appealing image of mountains, forests, and rivers covering the predominantly green map.

The action breaks down into several phases. In the Command Phase, you move a large square cursor around any unit and press the fire button to see its movement, firepower, and range factors displayed in bold stencil letters at the bottom of the screen. Markings on top of the pieces indicate their type: infantry, tank, artillery, engineering, or recon units. A selected unit may be ordered to dig in, in which case it regains strength after sustaining casualties. Or you can press the button and call it into active duty, which allows you to move it in the next phase.

The Movement Phase is similar, but the cursor turns violet to indicate that the unit has been picked up and will move along with the cursor, at least until its Activity Points are depleted. Units digging in or out of Activity Points are out of action in the following phases and can't be reactivated until the next Command Phase. The computer-controlled enemy interrupts intermittently with sporadic artillery and machine-gun fire, punctuated by ear-bursting sound effects.

The square cursor is replaced by a crosshaired gunsight in the Combat Phase. To commence battle, move the cursor atop a tank unit, for example, and press

the fire button. Then slide the cursor to the desired target and hit the button again. If the target is out of range or if your line of view is blocked by a town or mountain, an appropriate message appears at the bottom of the screen.

In the Assault Phase, the cursor becomes an arrow used to select units to overrun enemy forces right beside them. Units usually head for cover when assaulted by superior forces. Following this phase, the enemy has a chance to counterattack. When the message "enemy units on the move" flashes, *Space Invaders*-style bleeps provide an incongruous soundtrack as the troops take up new postions. All you can do at this stage is sit tight and hope for the best. If you've developed a shrewd strategy before launching your attack, you stand a better chance than armchair generals who go for the throat on the first few turns.

A fter the enemy's done its worst, a victory level score (questionable, marginal, tactical, strategic, or breakthrough) shows how well you did in that round. You're prompted to either continue the game or save it and finish later. You can save to the game disk, much more convenient than using a separate disk as required by most games. The entire cycle of phases repeats until you've either taken the town and held it for two consecutive turns or until 35 turns elapse. For a decisive victory, you must accomplish the objective within 20 turns, fewer in the advanced levels.

Several key bridges must be crossed enroute to the city, but they're usually destroyed by retreating enemy forces. This means your engineers, who can rebuild them during the Assault Phase, have to be stationed at the proper point in your attack force. Leaving them at the rear can result in disastrous delays.

Such elements as these, which teach the interplay of strategy with its tactical execution, must be mastered before you'll stand a chance at any computer war game.

Compatibility: Atari, Commodore 64
Format: Disk
Manufacturer: Brøderbund Software, Inc.

Knights of the Desert

Knights of the Desert is a stimulating one- or two-player game that pits the Nazis against the Brits in the pivotal North Africa campaign of 1941–1943. You command the Germans in the solo version, facing the computer-controlled British Commonwealth forces on an expansive battlefield portrayed on a richly colored map. The desert, mountains, and other terrain which affect troop movement and key cities such as Tobruk and Benghazi are clearly marked. A hexagonal grid covers the map, allowing units to move in any of six directions.

At the outset of a round, reinforcements arrive at each player's home base, according to the historical order of battle. Supply status of all units is then checked, and those close enough to depot units receive fresh supplies. In the Logistics Phase, you determine resupply priority, the percentage of the total supply pool allotted to each unit.

The real action occurs in the Operations Phase, where tapping on the keyboard moves a hex-shaped cursor. By pressing another key, you can view the names of the units, all representing genuine infantry and armored divisions and regiments, occupying the selected hex. Combat strength, supply status, and other relevant data are also displayed. Press a corresponding number to select a unit, which moves along with the cursor. The screen scrolls horizontally and vertically to reveal more of the map. When you try to move past the screen's edge in the Commodore version, though, the map blanks out and is quickly replaced with a map of the area your unit just entered.

Combat breaks out when two opposing units occupy adjacent hexes. The attacker inputs the number of air points, intensity of battle, and other variables. If there are multiple defenders in the hex under attack, the defending player can choose any or all to participate. Sound effects are limited to occasional explosions and machine-gun chatter throughout this phase. Then the computer determines the results, based on the troops involved and their relative strength. The number of combat points lost by each is displayed; if a unit is wiped out, it blinks out of existence. Occasionally, the computer breaks in and of-

fers the defender a chance to make limited reaction moves and attacks. After several other phases devoted to depot movement and resupply, the other player—or the computer in the solo version—cycles through the same phases. The number of such sessions depends on which scenario is chosen.

Victory, rated from marginal to strategic, hinges on stringing supply lines of depot units from your home base across the Libyan and Egyptian deserts to the troops in the field. Unsupplied infantry, tank, and other units will wither away or be wiped out by the enemy if they aren't within two hexes of a depot during the Supply Phase. Since logistics is the crux of any major military conflict, this aspect makes *Knights* a topnotch simulation.

The full-length campaign lasts up to 12 hours, but you can save a game in progress and fight again another day. Or elect to play out one of the dozen minigames, each representing a specific part of the overall campaign that may last one to seven turns. Difficulty may be adjusted by setting over a dozen parameters; this is handy for evening up the odds when a novice player takes on a battle-seasoned vet or when waging war with the computer.

Knights of the Desert is an intermediate-level game, and newcomers to this genre should get their training with a less-complex war game. The 24-page manual is packed with detailed instructions, but it can be intimidating, even confusing, if you're not already familiar with the concepts.

Compatibility: Apple II, Atari, Commodore 64, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Strategic Simulations, Inc.

Combat Leader

Blood and Guts" Patton would have traded his pearl-handled revolvers for a chance to take on the computer-controlled tank corps in *Combat Leader*. The game is a real breakthrough, gutsier and less abstract than most war games. Instead of marshaling an army of tiny

geometric pieces across a map, you directly supervise the maneuvers of real tanks that rumble across the scenery and blast away at each other, red and yellow shell-bursts exploding left and right. Instead of observing the battlefield on a grid of hexes or squares, you scrutinize an aerial view of the troops as they roll across a piece of terrain that more closely resembles the topographical maps used by genuine combat tacticians. Hills, forests, rocky areas, and depressions furnish varying degrees of visibility and cover from enemy fire. While strategy is important, tactics—how you handle your troops once they're under fire in the field and as conditions change—are even more crucial in this one.

In the Novice game, you act as company commander of a five-tank platoon, your mission to wipe out a similar force. With a joystick, you move a small cursor to the place you want to station a tank, then press 1 (to get that tank's attention) and G (to transmit the order to go to that spot). The screen scrolls vertically as you move the cursor north and south. Typing T tells the selected unit or platoon to aim in the direction of the cursor's current position; F indicates fire and C, cease-fire. A number of other commands offer full control over your troops, and an entire platoon can be addressed simultaneously by typing in the appropriate letter before the command.

The Intermediate game introduces a mechanized infantry platoon consisting of four oblong shapes that represent armored personnel carriers. Each transports a machine gun, rifle, antitank, or mortar squad that can dismount and take up positions to bushwhack an equal force of enemy infantry in a little valley. When the units leave the vehicles, the eight men in the various squads are displayed as tiny X's.

One element which contributes to the game's authenticity—and fun—is that an enemy unit is visible only if one or more of yours can "see" it. Each tank or infantry unit commands a 90-degree angle field of view, so enemy tanks can sneak up on unwary soldiers. And though you may have your tanks and machine gunners aiming right between the eyes of an enemy tank, you can't count on putting it out of action immediately. As in real war, your guns aren't 100 percent accurate.
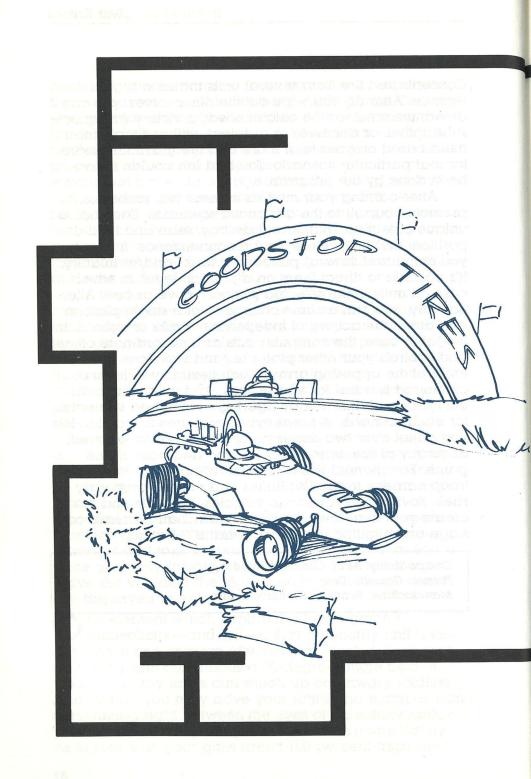
Concentrated fire from several units makes a big difference. After (if) you wipe out the other forces, you can determine whether the outcome was a victory (marginal, substantive, or decisive) or a defeat, with a simple formula based on your final score and the maximum score for that particular scenario. Too bad this couldn't have been done by the program.
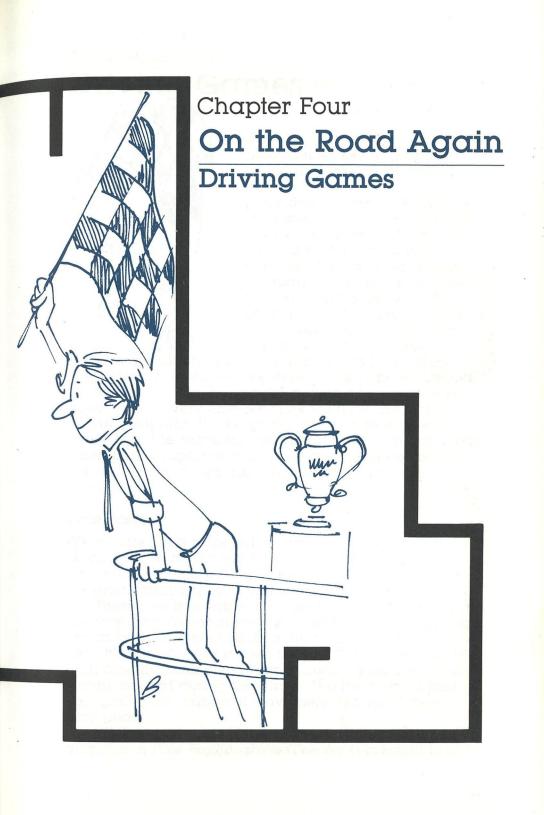
After earning your medals in these two scenarios, promote yourself to the advanced scenarios. Each has a unique objective: attack and destroy, seize and hold a position, mobile defense, and reconnaissance. In these, you command several platoons of tanks and/or infantry. It's possible to direct them on a platoon level, in which case all units in the selected platoon move as one. Alternatively, you can assume command of a single platoon and direct the actions of independent tanks or squads. In the latter case, the computer acts as a subordinate officer and controls your other platoons (and simultaneously, the tanks of the opposing army). Such flexibility in level of command is a first for war games. And you won't burn out quickly on this one by figuring out the best strategies for each scenario. A create-your-own-scenario option lets you adjust over two dozen parameters, like tank speed, accuracy of fire, terrain mix, armor, and pace of the game. The manual lists authentic ratings of 74 tanks and troop carriers, from WWI British tanks to contemporary Israeli, Soviet, and American vehicles. With this and the create-your-own-scenario option, armchair generals can stage an unlimited variety of "what if?" battles.

Compatibility: Atari, Commodore 64
Format: Cassette, Disk
Manufacturer: Strategic Simulations, Inc.

Chapter Four
On the Road Again
Driving Games

Driving Games

Even people who despise computer games like to grab the wheel and take a few laps around the screen with a computer driving game. Maybe it's the American love for the automobile. Or maybe it's just that playing such a game gives us that one chance to tear down the road like a maniac without having to worry about hitting anything. In any case, gamers love to drive, especially those too young to do it legally.

There are plenty of driving games available. None of them exactly duplicates the experience of being behind the wheel of a car, but they're getting better and better. It seems that every time we think we have the state-of-the-art computer driving game, along comes an even better one. The following are the best ones right now, but when photographic-quality laser disc games enter the home, realism should take another quantum leap forward.

Pole Position

This is the state of the art in 1985. An almost exact duplicate of the hit arcade game, Pole Position is simply the best computer driving game in existence. It's one of the most visually spectacular games we've seen.

There's no innovative concept here (see Pitstop); you just race your Indianapolis-style car around the track as fast as possible without hitting the road signs or other cars. It's almost a first-person perspective—your view is from directly behind your car. Actually, your car never moves forward during the game. The road whips past you, giving the illusion of movement. But the illusion is very good.

While it's not as brilliant as the arcade game, the graphics in Pole Position shine. The sky is a bright blue

drive off the face of the earth? As with any classic game, these criticisms are quibbles.

Analytically minded drivers will appreciate *Pole Position*'s dashboard readings, which register your speed, score, previous top score, gear, lap time, and starting-position number. On the other hand, maybe you'd just like to put your foot to the floor and see how many cars you can smash into. Either way, the game is a gas. *Pole Position* is so realistic that if you're drinking, we suggest you give the joystick to somebody else.

Compatibility: *Atari computers, Atari VCS, Atari 5200, Commodore 64, Commodore VIC-20, IBM PCjr, TI-99/4A* (Note: You'll find the Atari computer and 5200 versions to be excellent, while the Commodore 64 version squiggles as you corner.)
Format: *Cartridge*
Manufacturer: *Atari Corporation*

Turbo

J oystick was a word coined by World War I fighter pilots who felt that their stick controllers contributed to the joy of flying. Joysticks also make flying a computer game's plane or spaceship pleasurable. But an automobile is controlled by a steering wheel and accelerator pedal. No matter how good the game is, it will never approach the realism of being behind the wheel of a car if you have to control it with a joystick. Every driving game suffers from this flaw except for one—*Turbo.*

This pre–*Pole Position* arcade hit from Sega was successfully translated into a home game and comes packaged with a simulated black-leather steering wheel and accelerator pedal that plugs into one of the computer's controller ports. A regular joystick plugs in the other one and fits snugly into a well next to the steering wheel. The joystick becomes a gearshift; push forward for low gear and pull back for high. From the control standpoint, *Turbo* is the most realistic driving simulation there is.

The game is no slouch either, though nowhere near the level of *Pole Position*. The perspective is the same,

and the road is surrounded by endless green grass. The designers went that extra step to add details most people never notice. When you go into a sharp turn, for instance, the mountains and clouds in the distance slide across the screen, as they appear to do in reality. And when you floor it down the straightaway, the mountains stay still.

It's not as difficult as the arcade game. The car can't move as much from side to side, and it's fairly easy to stay in the middle of the road. Instead of a real steering wheel and accelerator pedal, all your controls are on the joystick. With the Atari computer version, you move the stick left and right to move your car in those directions, pull back on the stick to change from low to high gear, and brake with the fire button.

Pole Position can be customized somewhat to suit your driving preferences. You can select any of three different courses—Atari Grand Prix, Malibu Grand Prix, or Namco Speedway (named after the company that originally designed the game)—in addition to a practice run where your car has the track to itself. Actually, the courses don't differ that much from each other, but it is nice to have a choice. You can also choose the number of laps, from one to eight, in the race.

In all the races, you have to run a qualifying lap under a time limit before you're allowed to enter an actual race. Your qualifying time determines in which position—from the pole position to eighth place—you start. Even if you get the pole position, the race course will be magically endowed with cars in front of you. Bonus points are awarded for passing. Low gear takes you up to 105–145 miles per hour, depending on the game version. To pass a lot of cars you'll have to put her into high, which tops out between 195 and 240 miles per hour.

P ole Position has just a few faults. The signs along the road don't have cute little messages on them (Atari, Dig Dug, and so on) like the arcade game does, and when you crash, the resulting explosion could be beefed up a little. After all, you *are* bursting into flames and totaling a car worth hundreds of thousands of dollars. One quirk you'll notice is that after you pass another car, you can slow to a stop right in front of that car and it won't hit you. In fact, you'll never see it again. Does it just

behind the car, a little bit off the ground. As in *Pole Position*, the road and landscape sweep by, making it appear as though you're moving forward. Actually, the game almost resembles *Space Invaders*. Objects (other cars) zip to the bottom of the screen, and you avoid them by swerving left and right.

Turbo would be somewhat boring if it weren't for its great graphics and unfolding gameplay. The screen is brightly colored, and those colors really shoot by as you drive, almost distracting you from the task at hand. Oddly, the only bad thing about the graphics is the cars themselves, which look like little wedding cakes on blocks. That's a shame, because the cars receive all your attention, not the background.

U nlike other driving games, *Turbo* changes as you progress through it. You start your journey in a city with tall buildings on each side of the road. After a few minutes, the buildings on the left come to an end, and trees and grass whiz by. Then the buildings on the right end, and you're in the countryside. As you continue, you'll drive along the seaside, past a gorgeous sunset, through dark tunnels, and over hilly and slippery snow-covered roads. There isn't much time to enjoy the scenery, though, for there are hundreds of cars out there. There are also oil slicks to throw you off-balance and a hairpin right turn that would make the Unser family switch to mass transit. Every so often an ambulance drives up, and you have to slow down and let it pass.

Even so, these changes just repeat over and over again with no conclusion. It would be nice if the game had some ultimate goal that only the best players could reach—a finish line, or better yet, a secret city with delights beyond the imagination. Beating your previous score is a high, but the game should provide additional incentives.

Still, that steering wheel, accelerator, and gearshift make the game. You can whip you car back and forth across the road faster than in any other driving game. Points are scored according to the number of cars you manage to pass. Extended-play and bonus points are awarded if you pass 30 cars within a limited time period. The engine revs up when you hit the gas or throw it into

high. You can play an easy skill level that allows un-
limited crashes or three harder levels in which you'll be
lucky to make it out of the driveway. The game will
probably be enjoyed best by kids, who haven't yet
learned that turning a steering wheel and hitting a gas
pedal aren't an escape from reality, but only uneventful
activities adults do every day.

Compatibility: Coleco Adam, ColecoVision
Format: Cartridge
Manufacturer: Coleco Industries, Inc.

Pitstop

*A*s a driving game, *Pitstop* can't hold a crankcase to
Pole Position or even *Turbo.* The graphics are simple
and unexciting, reminiscent of Atari VCS games like *En-
duro.* The perspective is off—the trees alongside the road
don't seem to come at you; they just get larger on the
screen. You can't even switch gears. So why is *Pitstop* in-
cluded with these best all-time computer games?

Pitstop has one very obvious element that the de-
signers of every other driving game chose to ignore.
Racing cars break down and racing cars run out of gas.
The other games pretend that the cars are some kind of
supernatural machines. They have an unlimited fuel sup-
ply and when they crash they just burst into the obliga-
tory ball of flames, disappear, and are miraculously
replaced by shiny new machines.

Real automobile races are won and lost in the pits.
Pitstop is the first game to address that part of the sport,
and that's why it's included. It's an innovative, if not
graphically spectacular, game.

You can't crash or even drive off the side of the road
in *Pitstop.* When you bump into the guardrail or another
car, your tires are damaged. This is indicated by the
color of the tires. At the start of the race your tires are
dark blue. As they get damaged, they become light
blue, then green, then red. After about 20 bumps, a tire
will explode and you're out of the race. You're also out
of the race if you run out of fuel, which is indicated by a
bar at the bottom of the screen.

You can avoid that by pulling into the pits when you see that the tires are in rough shape or when fuel is low. A small radar map on the left of the screen indicates your position on the course in relation to the pits.

When you pull in, it's like a different game. The colors are much brighter than the drab pastels of the actual race. Your car and four-man pit crew fill the screen. As the clock ticks away and the cars whiz by in the background, you move a cursor on the screen to help the crew complete their chores. One guy gasses up the car while the other two take the tires off and replace them with new ones. Finally, another guy waves the flag to send you back in the race. The graphics are much more realistic in the pits than in the race. If you're not careful, you may find yourself replacing the left-front tire in the pits, although you pulled in because the right-rear tire was damaged.

Back on the track, you put the pedal to the metal and peel out. Pushing forward on the joystick accelerates your car; pulling back slows it down. The engine realistically roars in response to your command. When you slow down, so do all the other cars for some reason. No cars ever pass you. Like in *Pole Position,* if you pass a car and sit in front of it, the car just disappears. The road has only gentle curves and there are never more than two other cars on the screen. But these cars are programmed to swerve from side to side more than in most other driving games.

There are six different courses in *Pitstop,* based on real race courses, from the icy, snow-capped Albi to St. Jovite, the racer's graveyard. Frankly, all six look almost exactly the same. The designers would have been better off creating one good track than six boring ones. Players also have the option of racing three, six, or nine laps and competing as a Rookie, Semi-Pro, or Pro driver.

Instead of meaningless points or times, *Pitstop* players race for good old American money. Up to four players can play (taking turns), and first place pays $50,000. An additional $1,000 is awarded for each lap completed.

With this type of scoring system, *Pitstop* is best as a multiplayer game (what's the point of coming in first if no one else is playing?). This is where the game gets intense.

Your friend Bob just finished the race in five minutes and 23 seconds. You're in the middle of your race and your tires are pretty beat up. Should you try to limp to the finish line in record time and risk blowing a tire or play it safe by pulling into the pits to make sure you finish in the money? Fifty grand is at stake.

> **Compatibility:** *Atari computers, Coleco Adam, ColecoVision, Commodore 64*
> **Format:** *Cartridge*
> **Manufacturer:** *Epyx, Inc.*

Rally Speedway

While most driving games have you endlessly circling around nondescript tracks, *Rally Speedway* lets you run off the road, crash into trees, and even drive into swimming pools. This is the most unusual of the driving games in this roundup. Although the graphics don't come close to what you'll see in *Pole Position, Rally Speedway* is more fun than any other driving game.

Adventure International isn't known for action games of this type. They specialize in adventure games, notably those by Scott Adams. Perhaps that allowed game designer John Anderson to create a driving game that's so much different from what we've come to expect.

This biggest difference is that two players can play at once. There are plenty of two-player games out there, but in just about all of them, players take turns. *Rally Speedway* is one of the few games that slaps a joystick into the hands of both players and puts them both up on the screen at the same time. The interaction and competition that take place between the two drivers can get intense. This is almost always more fun than the usual man-versus-machine match-ups. *Rally Speedway* can also be set for a one-player game—racing against the clock.

The perspective is different here, too. Instead of being in the driver's seat as in *Pole Position* and *Turbo*, you've got an overhead Goodyear blimp's view of the race. The courses (you can choose from two) are more like Le Mans than Indianapolis. The road twists and turns

more than other driving games, as you zip past a suburban setting of trees, houses, and fields. Actually, the game would be even better if obstacles (defenseless pedestrians crossing the street?) had been included. As it is, when you accidentally drive off the road—and you will—your car slows down on the grass and slows down even further when it touches water. These race cars must be durable—you can drive into a lake or swimming pool and just sit there for five minutes, then continue the race. You can also drive right into people's houses if you pick "only in a computer" instead of the real-life option, although that rarely helps win races.

C rashing is a way of life in *Rally Speedway*. Your car bursts into flames as in most driving games, but here a little figure (representing you) jumps away from the wreck, tumbles a few times on the grass, gets up, and cheerfully waves to the crowd. Then, through the magic of microprocessors, a new car appears and the race continues. In the two-player version you can bump into your opponent's car and cause him to explode in a fiery crash. It's not a particularly moral thing to do, but it *is* sort of fun, and it might win you the race. Don't lose any sleep over it.

Rally Speedway gives you plenty of options, so you can customize the game for any player from beginner to expert. For instance, you can drive on a dry, wet, or icy track surface. The top speed of your car can be set to either 40, 60, 80, or 100 miles per hour, and the acceleration can vary from slow to normal to fast. You can also set the number of laps in the race. Naturally, the options selected apply to both players in a two-player game.

The game plays fast. Since the road twists in all directions, the joystick control takes a little getting used to. As in *Pole Position,* your fire button is your brake. Tires squeal as you take the corners. The car skids the way a real car does. Ten-second penalties are assessed for crashing or falling too far behind the other driver. The clock ticks away the minutes and seconds so you can compare your performance with your opponent's and with your previous times.

Perhaps the most innovative feature about *Rally Speedway* is that you don't have to drive on either of the
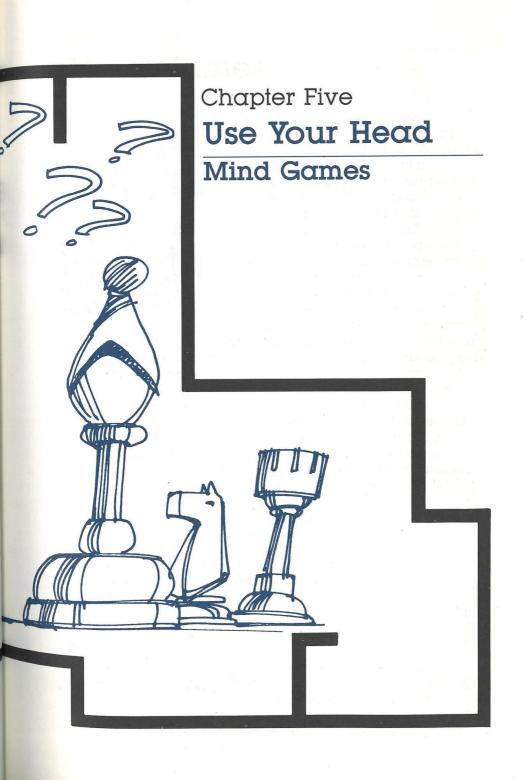
game's race courses. You can create your own. The Trax-Construct feature allows you to take the 29 graphic elements which make up the screen (left hairpin, right hairpin, horizontal straight, and so on) and fit them together like a jigsaw puzzle to construct the race course of your dreams. Then, if you've got a disk drive or cassette tape recorder, you can save your creation and race on it over and over again.

Playing *Rally Speedway* is not exactly "raw concentration torched up to liquid-fire intensity, and then cooled and hammered out into an unyielding veneer of determination" as described in the game's documentation. But it's a kick.

> **Compatibility:** *Atari*
> **Format:** *Cartridge*
> **Manufacturer:** *Adventure International*

BLUE MARLIN

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HOOVER

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SECRETARIAT

32°

OMAHA

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HENRY VIII

RED SEA

JOHN
PAUL II

SPOCK

1849

DEC. 7

FIVE
PIECES

TEXAS

DR. J

B.

Chapter Five
Use Your Head
Mind Games

Mind Games

When you say "computer games," most people think of simple shooting games. While it's true that the early days of arcade games were dominated by the hand-eye, blow-their-brains-out twitch games for kids, they're only a small part of it all today. Computer games have grown up. The mind is challenged as well as the hand.

A lot of it has to do with the replacement of the home videogame system by the home computer. Computers open up worlds of possibilities that game systems couldn't handle. The keyboard allows you to interact in many more ways than a joystick can. Disk drives hold more information than cartridges and can load them into the computer one piece at a time.

Furthermore, the flood of computers into homes has raised the age of the audience. While Mom and Dad could dismiss the family game system as a toy for the kids, they didn't mind buying a little entertainment software once they got a computer and started using it for household tasks.

These factors, plus the inevitable evolution of games, have brought about a new generation of mental challenges. Though adventure games, war games, and simulations all depend partially on logic and reasoning, there's a group of games for all those people who love taking IQ tests, solving puzzles, and playing Trivial Pursuit. You don't need to shoot aliens or eat dots to have fun.

Sargon III

Limited to a one-player game, *Sargon II* still ranked among the top computerized chess games. *Sargon III,* the latest incarnation, offers a two-player mode and other new features that have enabled it to checkmate the rest of the competition in one bold advance. In this version, Sargon looks over both players' shoulders to insure

that no one makes an illegal move. You can still go head-to-head against Sargon for fun, practice, or humiliation. A second disk provides 107 historical masters' matches and a collection of chess problems, both excellent ways to improve your game.

The monochrome hi-res display shows the board set up to play, with clearly distinguishable pieces. Choice of black or white is up to you. All moves are selected from the keyboard, with coordinates corresponding to the row of letters (A–H) across the top and a row of numbers (1–8) down the side. First, the piece's current position is keyed in: A2 for your far-left-hand pawn. To move it one square ahead, you'd type a dash and A3. Hit the Return key and the piece flashes briefly, then teleports to the destination. Sargon beeps and makes a countermove from its opening library of over 68,000 positions stored in file on the disk. When the game develops beyond the opening gambits, Sargon starts "thinking" independently.

An asterisk blinks on and off, signifying that Sargon is examining your possible moves and its replies. Sargon normally thinks during your turn; the longer you take to make your own move, the more time this calculating opponent has to consider its next move. (Easy mode turns off its brain during your turn.) Sargon takes about five seconds to move on the first level, but at higher levels the computer spends more time searching for the best move or countermove, looking further into the repercussions of each. Sargon takes 15 seconds on the second level, and up to ten minutes on the eighth. On the Infinite level, Sargon may mull matters over until you hit a key and tell it to get on with the game. On the first level, the program's fairly easy to beat.

To look back at the moves which trapped your queen in the cross fire between a black bishop and rook, you can flick off the graphics and read the text screen. This lists the moves made thus far by both players. It's written in the same notation used to enter your moves and can be converted to hardcopy if you've got a printer. The pieces' current positions on the board can be printed, too. These conveniences enable you to contemplate your strategy over lunch, then execute the plan later that night. (If you forgot to save the game in

progress to disk, the Analysis mode permits you to set up the board by arranging the pieces in any pattern. This is also handy for studying and solving chess problems, like those found in newspaper chess columns.)

Have trouble deciding whether to capture that knight or not? Sargon offers a tip if you press a key. If that doesn't help, you can always take back your last move or one of Sargon's. In the latter case, Sargon must either reconsider its move or let you move for it. Or you can take back one move after another until the board is back to the position at which you made a strategic blunder. If all else fails, simply change sides with Sargon, and let this silicon sharpie "think" its way out of the situation. You can even pass your turn, definitely not allowed in the real game. These features aren't made available to encourage cheating, but to provide alternative methods of studying and mastering the game's concepts and nuances from various angles.

The collection of historical games, which date back to an 1851 London match, is instructive for novices and veterans alike. Compiled and described in the manual by Life Master Boris Baczynskyj, these examples can be replayed at your leisure. Each time you hit the Return key, a player moves. You can try to find the best move, then see what one of the masters did. This unhurried pace and the chance to review the text screen reinforce the educational value of the 107 games on disk.

Five types of chess problems are also covered: openings, strategy, tactics, end games, and checkmates. You choose a problem from the five or six in each category, and a position is displayed for you to analyze and solve by finding the proper move. The answer is in the manual, with a capsule explanation of the move's logic. But it's more fun to press Return and watch the pieces illustrate the solution. A concise, clearly written 80-page manual offers an introduction to chess and the basic moves, strategy tips, and a bibliography for anyone serious about checkmating Sargon on the ninth level. *Sargon III* is one of the few games truly suited for beginners as well as advanced players, and the tutorials are unparalleled. Macintosh owners will enjoy somewhat quicker games, since *Sargon* runs two or three times faster on the Mac.

Compatibility: *Apple II, Commodore 64, IBM PC, IBM PCjr,*
Macintosh
Format: *Disk*
Manufacturer: *Hayden Software Company, Inc.*

Fax

We are in the middle of what's often called the Information Age. The human brain seems to have the capability to store an unlimited amount of information and even seems to have room for obscure and meaningless facts. Like the name of the pitcher who threw the ball that Babe Ruth slammed for his sixtieth home run in 1927. Or the entire Dewey Decimal System.

Only a few people are geniuses. For the rest of us, knowing these trivial facts gives an impression of keen intelligence. Even if we don't understand the theory of relativity, just knowing Albert Einstein's middle name will probably knock a lot of people out of their seats at a party. Books and TV quiz shows about trivia have been very successful. The board game Trivial Pursuit was a national sensation last year.

Fax takes advantage of the computer's internal clock to make an exciting trivia contest. The program's two disks contain over 3700 questions in the categories of History, Sports, Entertainment, and Grab Bag. All questions are multiple-choice or true/false. When the question appears on the screen, a clock starts counting down from about 3000. It reaches zero in six seconds. If you jump on the key representing the correct answer before time is up, you receive the number of points remaining on the clock. If you answer incorrectly, you get no points. In either case the computer tells you the correct answer.

Fax is based on the arcade game of the same name, and like the arcade game, it's more fun as a two-player game. In this mode, one player chooses an answer with the keys 1, 2, 3, or 4, and the other player hits 6, 7, 8, or 9. The first player to press the correct key gets all the points for the question, so a quick mind is nearly as important

as a fact-filled one. The entire game is timed, and extra time is awarded if you've reached a certain point total when the time bar is depleted. There are three skill levels (novice, expert, genius) but many of the same questions show up in all levels.

Questions are, on the average, easier than Trivial Pursuit's , and some are "gimmes" ("Which president chopped down the cherry tree?"). Questions are geared more for today's teenagers and baby boomers ("Which of Charlie's Angels did Cheryl Ladd play?") than anybody else, although there are many toughies that only an old-timer will know ("Who was the last pitcher to legally throw a spitball?"). The history questions are almost all U.S. history ("Where was the Liberty Bell cast?"). The sports questions range from the ridiculous ("What do many athletes wear on the bottom of their shoes? 1. Clods 2. Cleats 3. Clones 4. Spats") to thought-provoking ("How many ways can a batter reach base without a hit?"). The questions are more serious than Trivial Pursuit's, but occasionally *Fax* throws in a zinger like, "What could Tonto's talks with the Lone Ranger be called?" The answer is Kimo Therapy.

The game has a few simple graphics. When you answer correctly, there's a little smiling face wearing a mortarboard and tassel. When you're wrong, it turns into a frown with a dunce cap. You're also chided with text ("Put mind in gear," "I'm beating you," "back to school," "do your homework," among others).

Fax is one of many trivia contests on the market. If you can't get enough useless information, you should also try *Quizagon* (Counterpoint Software), *Trivia* (Cymbal Software), and *Trivia Fever* (Professional Software). And if that doesn't satiate you, you'll have to memorize the *Encyclopaedia Britannica*.

Compatibility: *Apple II, Commodore 64, IBM PC, IBM PCjr*
Format: *Disk*
Manufacturer: *Epyx, Inc.*

Intellectual Decathlon

Once you get past the title and ridiculous package art of computer nerds jumping over hurdles, you're in for a mental treat. *Intellectual Decathlon* consists of ten computer quizzes reminiscent of the little brain games you sometimes find on restaurant place mats. None of them demands any prior knowledge. Instead, they test your memory, logic, problem-solving ability, and powers of observation. The game can be enjoyed by children and adults alike.

Here are the brain twisters....

- Numberstretcher—The computer briefly flashes you a string of six digits. If you can recall them and type them in correctly, you receive a string of seven digits. And so on. The same idea as the electronic game *Simon.*
- Note the Notes—You're presented with a seven-note melody. Then you've got to pick that melody out when 60 random notes are played.
- Safecracker—Nine safe dials are on the screen, pointing in different directions. You can move the dials, but not individually. By selecting the right pattern of dials, you try to make them all point toward twelve o'clock.
- Mazerace—Race from one corner of the intricate maze to the other, using four keys for movement.
- Apple Derby—This clever contest tests your ability to weigh many factors at once and determine the winner of a horse race. Nothing is left to chance. You are given the results of the last five races for six horses (including Byting Bill and Floppy Ears). Their performances vary depending on track length, jockey, weather, their health, and fatigue. You're told what all those conditions will be for the next race—how will the horses finish? You bet the points you've accumulated on win, place, show, trifecta, quinella, or perfecta. This one would make a good game on its own.
- Lying Digits—Back to basics. Ten arithmetic problems are flashed and you choose whether the answers are true or false.
- Matchmaker—Random word pairs—like *ROBOT–BALLAD*—fill the screen. You have a short time to look at them, then they disappear, and you're presented

with the words one at a time. Try to remember which words were paired with which.

- Brainblender—Various symbols are on a 6 × 6 grid. You attempt to move a frame to your symbol by hitting combinations of keys, each of which has a hidden value. If that sounds confusing, it is. This one is for adults and will take some time to figure out.
- Instant Replay—Groups of small objects appear on the screen and vanish. Then another group appears. Is it identical to the first? Each time you guess right, one more object is added to the group.
- Abstrajig—The computer generates a colorful abstract picture, then it cuts it into 16 squares and scrambles the positions. You try to rearrange them and reassemble the picture.
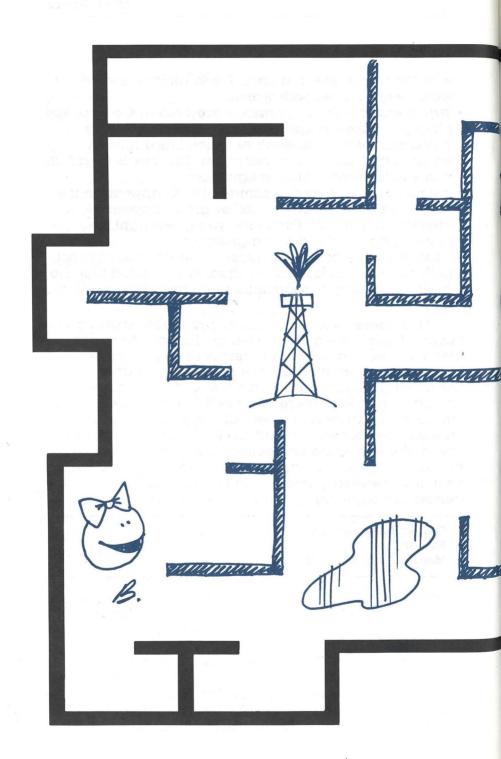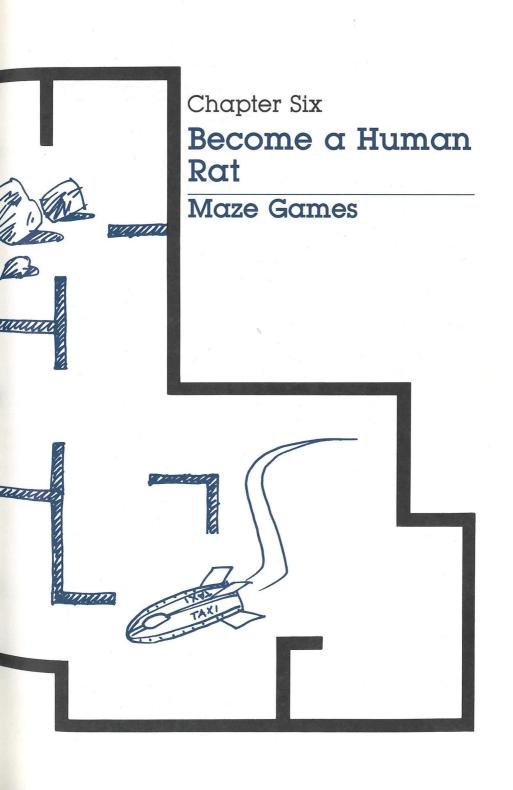
All of these events are timed, and higher scores go to the quick thinkers. In true quiz-show fashion, there are plenty of beeps and honks in response to your moves. Some of these brainteasers are simple, others are maddening. You can tackle them in order or practice any one you'd like. There's no need to even look at the nine-page instruction booklet—the documentation is right on the screen for each event. Up to six players can play, and at the end of the competition the gold, silver, and bronze medals are awarded to the winners. The Olympic tie-in is unnecessary and a little bit strained, but these ten quizzes are challenging, educational, and fun.

Compatibility: Apple II
Format: Disk
Manufacturer: Muse Software

Chapter Six

Become a Human Rat

Maze Games
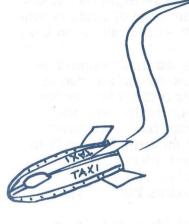
Maze Games

Here's our theory to explain the incredible addiction of maze games....

In a maze, your moves are clearly defined. Because you have only about four choices (directions) at any one point, when you make a mistake, you instantly know what caused it. You say to yourself, "If I'd moved left instead of up at that intersection, I wouldn't have been eaten." Knowing the error makes you feel you won't do it again, so you want to play another round. This time, of course, you'll make a different mistake, and the cycle repeats.

Whether or not this explains it, humans have a powerful urge to be trapped like rats in mazes—as evidenced by the *Pac-Man* sensation a few years back. Since then, there have been hundreds of variations on what would seem to be a somewhat limited type of game. Manufacturers have got around the inherent restrictions of mazes by introducing monsters with unusual characteristics, new obstacles, new safety valves, and innovative special features. Maze games often require intricate strategy and slick hand-eye coordination, a combination that turns on millions of players.

Oil's Well

There's something delightfully addicting about gobbling up hundreds of dots in mazes. Maybe it's the constant reinforcement. Maybe eating dots is a substitute for eating food. Whatever the reason, contests like *Pac-Man*, *Ms. Pac-Man*, *Jawbreaker*, and now *Oil's Well* are fascinating games that make it difficult to put down the joystick and eat a real meal or watch the evening news.

The premise of this one-player game is that geologists have just located one of the largest oil deposits in North America. Fortunately, it's right under your property.

63

You've got to dig through underground tunnels with a snaking drill bit to get the oil. There are eight oil fields to clean out. When you finish them all, your oil refinery will be completed. Then you can sell the oil and live on Easy Street for the rest of your life.

Forget the premise. It's another eating-around-the-maze game. The oil pellets are dots, the underground tunnels are mazes, and your yellow drill bit that opens and closes when it moves is none other than a Pac-Man. While at first glance *Oil's Well* seems like just another *Pac-Man* ripoff *(Munch Man,* etc.), the game actually introduces some innovative ideas that add to the classic game's appeal. The yellow drill bit in *Oil's Well* isn't meant to copy the venerable Pac-Man, but to pay homage to him.

When Pac-Man moved through his mazes, he never had to worry about what was behind him. But in *Oil's Well,* you leave the thick line of an oil pipe wherever you move. This is the biggest difference between the two games, and it changes your strategy entirely. The deeper you dig for oil, the more pipe snakes around the maze. That pipe, of course, is vulnerable to attack.

Ghosts were Pac-Man's enemies. In *Oil's Well,* you've got oozies to contend with. These little critters travel horizontally in both directions across the screen. There are different types of oozies, some of which look like refugees from *Space Invaders, Sneakers, Apple Panic,* and other games. (One of them looks like a pitcher of Kool-Aid.) All of them destroy your drill bit and pipe on contact. You also have to contend with bombs that occasionally slide across the screen. The bombs were planted by your competitors to sabotage your operation. They'll also blow up your drill bit, but they pass harmlessly through your pipe. A couple of other characters to think about are goblets (worth 1000 points when you touch them) and petromins (larger dots in the deepest recesses of the ground that, when touched, slow down the oozies).

The reason you've got to abandon your *Pac-Man* strategies is that, even if your drill bit is safe from attack, the pipe trailing behind may be inches from contact with an oozie. You've got to be paying attention to all parts of the screen at once and quickly retract your pipe (by

pressing the fire button) to avoid the oozies. And there are usually at least six oozies on the screen at once.

Such a scenario lends itself to many different strategies. Some players try to clear out the dots from the less dangerous top rows before digging deeper and leaving a lot of pipe exposed. Others dive to the bottom right away and go for the petromin in order to clear off the bottom dots while the oozies are in slow motion. Still others ignore the dots altogether and go goblet hunting for big points. One tip all players quickly learn is to stick to the center of the screen when possible so that you have time to pick up the oozies with your peripheral vision. Whatever strategy is used, all players have to take risks eventually—if a field isn't cleared in 990 ticks of the clock, you lose one of your three drill bits.

The graphics of *Oil's Well* start off simply and get a little more complicated with each new level. The sounds of eating dots and oozies, grabbing goblets, and having your pipe destroyed are well integrated into the gameplay. You move much faster than Pac-Man ever did, and you can vary the speed of the game (regular, unleaded, and premium). *Oil's Well* is a simple game that you won't play for three months straight, but you'll come back to it again and again.

Compatibility: Apple II, Atari computers, Commodore 64, IBM PCjr
Format: Cartridge (Atari, Commodore), Disk (all)
Manufacturer: Sierra On-Line, Inc.

Ms. Pac-Man

When manufacturers discovered that the incredible 1981 *Pac-Man* phenomenon had largely been due to women entering the arcades for the first time, Bally/ Midway created this sequel game especially for them. Why they chose the title *Ms. Pac-Man* instead of *Pac-Woman* is a mystery. But the result became the greatest maze game ever, even better than *Pac-Man* himself.

The Ms. Pac-Man character sports a dimple and a bow on her hairless head and looks pretty much like

Pac-Man. But as the advertising campaign sang, "Dontcha know, I'm more than Pac-Man with a bow!" It's true. For starters, the game is more difficult than *Pac-Man.* While many players developed sure-fire patterns that would let them cruise around the *Pac-Man* screen for hours, none exists in *Ms. Pac-Man.* That's because the ghosts in *Pac-Man* followed predetermined paths around the maze—in *Ms. Pac-Man,* the routes of Blinky, Pinky, Inky, and Sue are randomly generated. This forces you to improvise and scramble for your life. The gameplay is similar, though: Eat all the dots in the maze while avoiding contact with the colorful ghosts. When you eat any of the four power pills in the corners, the ghosts turn blue for a short time, and you can chase them, eat them, and score hundreds of points. Points are also earned by eating cherries, pears, bananas, and other fruits which occasionally appear.

While Pac-Man struggled through the same old maze over and over again, his female counterpart has four different mazes to contend with. As you progress through the levels, the mazes feature fewer long straightaways and more sharp, twisting corners to negotiate. Most of the mazes have two tunnels that wrap you around to the other side of the screen, one on the top and one at the bottom of the maze. The higher levels of the game are incredibly tough because the ghosts move so fast, and when you eat a power pill, they turn blue and vulnerable for only about two seconds. The action can get truly frantic. Because *Ms. Pac-Man* is more varied and more challenging, it's definitely an improvement over *Pac-Man.* The irony of computer games is that nobody wants to play a game after they become proficient at it. *Pac-Man* was too easy to beat.

Comparing original arcade games with their home computer translations isn't as important as it once was. With powerful computers like the Apple, Commodore 64, and Atari, you can bet that the home computer game will be virtually identical to the original. This is the case with *Ms. Pac-Man.* The home version has all the subtleties of the arcade game. The jaunty theme starts off the game. The ghosts have individual personalities (the red one is faster and more intelligent), and their eyes move

in the same direction as they face. Ms. Pac-Man's head spins around in circles when she's captured. Seven different types of fruit bounce around the maze (in *Pac-Man*, they were stationary), tempting you to grab them for lots of points. Even the three cartoony intermissions between boards have been preserved. In addition, the home game gives you the option of starting at any level you prefer. This way, less-accomplished players can at least get a taste of the boards that are over their heads. It all adds up to an excellent maze game that you'll take off the shelf and play again and again.

Compatibility: *Apple II, Atari computers, Atari 5200, Commodore 64, Commodore VIC-20, IBM PC, TI-99/4A*
Format: *Cartridge, Disk (Apple, IBM)*
Manufacturer: *Atari Corporation*

Juice

W hat would happen if Q*Bert were put in a maze? That's the question designer Arti Haroutunian probably asked, which inspired him to create *Juice*. The game, like *Pogo Joe*, is one of the clones of *Q*Bert* that take Q*Bert to places he's never been before.

The Q*Bert character is played by a kinetic android named Edison. He looks quite realistically human. When he jumps around the maze, his knees bend to absorb the impact of landing. Instead of Q*Bert's pyramid, Edison's maze is a square circuit board that's tilted and floating in space. As he lands on each of the 46 board sections, a thick yellow line (electricity) appears. After every section on the circuit board has been hopped on, the circuit is complete and electricity can flow through it. Hence, the name of the game.

Like Q*Bert, Edison is pursued by undesirables. The Nohms are pairs of Ping-Pong balls with legs, who fall onto the maze and hop stupidly down until they jump off the bottom to their deaths. Flash is a bolt of lightning that changes any square you've jumped on back to its original nonelectrified condition. The most vicious enemy is a diamond-shaped capacitor. When it gets to the bottom of

the maze, it becomes the dreaded Killerwatt and chases after you, as Coily chased Q*Bert. There are usually four enemies on the maze at a time, each making its own identifying noise. When Edison is caught by a Nohm or a Killerwatt, a black hole opens and he falls through it.

Edison has a few weapons, besides your own skill. Every so often a smiling face named Recharge lands on the maze, and if you touch it, all the enemies on the screen freeze while you run around turning on the juice. If you touch Flash before he gets to the bottom, he'll disappear. But your best weapons by far are the teleportation pads that hang off the edge of the circuit board. They don't fly you to the top of the screen like Q*Bert's flying discs. They cause you to disappear and rematerialize on a pad on the other side of the screen, as if you were beaming aboard the Enterprise. There may be as many as five teleportation pads on the screen—you can even beam from a pad to the one adjacent. These pads can be used to lure a Killerwatt to his grave or simply to escape a bad predicament on the other side of the screen.

J uice is delightfully frustrating. There are six mazes of increasing difficulty. The last few will drive you insane. On these, you not only have to jump on every square, but you also have to jump on every square three times. And if you jump on one a fourth time, it changes back to its original condition. Did we mention the time limit? Take too long and you can forget about inventing the phonograph—you'll be dead. If there is any consolation, it's that the enemies all seem to enter the screen exactly the same way every time you play; conceivably, patterns can be developed to beat the game.

Juice is for fans of strategy maze games. It doesn't move very fast, and patience is more important than reflexes. The game allows beginners to disable some, or even all, of the enemies. Players of all skill levels will appreciate the crisp graphics, musical interludes, and addicting action.

Juice is to Q*Bert what West Side Story was to Romeo and Juliet.

> **Compatibility:** *Atari computers, Commodore 64, Commodore VIC-20*
> **Format:** *Cartridge, Disk*
> **Manufacturer:** *Monogram, Inc.*

Boulder Dash

Dig Dug was the first maze game without a maze. You carve your *own* maze by moving your character to create underground tunnels. It's a very popular computer game, but *Dig Dug* didn't make it into this collection because, frankly, we think it's pretty boring. *Boulder Dash*, created by Peter Liep and Chris Gray, borrows the diggable-maze idea, but adds fast action and fascinating gameplay to make an excellent maze contest.

The idea of tunneling under rocks to make them fall, which was just a minor part of *Dig Dug,* is the main point in *Boulder Dash.* The field is littered with hundreds of boulders, and you can't go too far in any direction without toppling a few over. The boulders crush your little character (Rockford, naturally) if they land on him. If you move him out of the way, the rocks tumble by as gravity and physics dictate. If you start a real rockslide, it sounds like someone falling down a flight of stairs. After a short time, you'll begin to have fun doing an end run beneath long rows of boulders, causing an avalanche. The entire cave doesn't fit on the screen at once; it scrolls past as Rockford walks around.

The object of this one- or two-player game isn't to make boulders fall, but to pick up glittering diamond-shaped jewels scattered about the screen. The boulders just happen to be in the way. Often, it's necessary to push aside a few boulders or tunnel under them to reach concealed jewels. This can bury the entire cave. The jewels are worth points, but more important, you can advance to the next level only after snatching up a specific number of them within a time limit. Bonus points are awarded if you grab the required jewels with time to spare.

B *oulder Dash* includes a remarkable 16 different caves, each screen demanding different strategies. While the first few are fairly easy and run-of-the-mill, it isn't long before the game's more unusual elements show up—butterflies, fireflies, amoebas, Enchanted Walls, and Titanium Walls. The other characters are certainly not your friends, but you can create jewels by dropping boulders on fireflies, dropping boulders through Enchanted Walls, or surrounding the amoeba (which looks like green slime) with boulders until it suffocates.

The secret is to turn your enemies into opportunities. Some of the situations look like they're impossible, but there's always a logical solution, usually several. *Boulder Dash* is a game that encourages many strategies. Once you discover the trick to solving a screen, you've got it forever—the screens don't change from game to game. There are four caves you can start at, but you have to discover the rest for yourself. Even expert players will be challenged for a long time.

Boulder Dash features some really spectacular graphics, with extra touches that go above and beyond the call of duty. If you take too long to move, Rockford blinks, puts his hands on his hips, and taps his foot impatiently. The boulders are shaded with different colors to make them appear rounded. And while many games have short animated intermissions between levels, *Boulder Dash* is the first to let you play them. There's no penalty for not playing these four interactive puzzles, but you get a bonus Rockford when you complete them. The sound is terrific as well—the game has a good theme song and one of the screens sounds like a washing machine. It's innovative features like these that made *Boulder Dash* the first home computer game to be made into an arcade game rather than the other way around. *Boulder Dash* is exciting, addicting, and easy to pick up.

Compatibility: Apple II, Atari computers, Commodore 64, IBM PC, IBM PCjr
Format: Cartridge (Atari), Disk
Manufacturer: First Star Software, Inc.; Micro Lab (Apple, 64)

Kid Grid

D on't even go near this game unless you're an expert. Though the concept is simple and it looks quite easy, *Kid Grid* is the most challenging maze game around. Even the first and easiest level will wipe out most players. But for those who really know their way around a maze, *Kid Grid* is the best kind of addiction. Better get a good joystick for this one.

Kid Grid was inspired by several arcade games, mostly *Amidar*, a 1982 machine by Stern. The screen is a 6 × 7 block, horizontal black grid. The blocks aren't filled in yet—they're made of blue dots. It's your job as the Kid to move around the grid and touch the perimeter of each block. As you move, a thick blue line trails behind and marks your progress. After you connect all the dots of a block, it fills in with bright blue and you receive 100 points. When you fill in all the blocks on the grid, you move on to the next, and more difficult, level.

The Kid is a cute little fellow who wobbles slightly as you move him around the screen. He's got some enemies named Thuggy, Muggy, Moose, and Squashface (*Kid Grid* was released right after *Pac-Man*'s enemies Inky, Blinky, Pinky, and Clyde became a sensation), who resemble a swastika, a Chinese ideogram, a pair of scissors, and an egg with legs. As you might guess, they're also traveling around the grid, and if the Kid touches any of them, he loses one of his five lives. The fearsome foursome are of varying intelligence—some of them have been programmed to follow predetermined patterns, others chase relentlessly after the Kid. Since the game has this randomness, there's no set pattern you can follow to get through a board.

A couple of elements have been added to make the game more interesting. First, a question mark moves about the grid, stopping off at random squares for a few seconds. If you fill in a square while a question mark is in it, you get extra points. Going after this treat is similar to going after the fruit in *Pac-Man*—tempting, but risky. Most of the time, you're satisfied to be alive in this game. Grabbing bonus points is, if you'll excuse the pun, out of the question.

More significantly, you have one weapon up your sleeve—the stun. When you press the joystick fire button, all your enemies freeze for an instant, and you can even move the Kid through them. It's less than a second, but that's enough time to get out of a jam. You're limited to five stuns per level, so they should be used only in extreme emergencies. Actually, the key to high scores in *Kid Grid* is saving up your stuns for the near-impossible higher levels of the game.

Your enemies don't move any faster than you do, but it's so tough because it's four against one. *Pac-Man* has the same ratio, but its maze gives you more places to hide, and the power pills are a lot more powerful than the Kid's stuns. Besides, *Pac-Man*'s ghosts often move as a unit. In *Kid Grid,* you find yourself concentrating so hard on evading the enemies that you tend to forget you even have stuns. Trying to coordinate everything is very difficult and frustrating, especially when you're struggling to reach 10,000 points, knowing that game designer Arti Haroutunian punched in his 45,000 at the top of the high scores table.

Kid Grid's graphics are exceptionally crisp, sharp, and colorful, especially in the Commodore 64 version. Again, it's not a game for beginners. But after you've cut your teeth on *Pac-Man* and his friends, Squashface and Company should be your next challenge.

Compatibility: *Atari computers, Commodore 64*
Format: *Cassette (Atari), Disk (both)*
Manufacturer: *Monogram, Inc.*

Space Taxi

Before *The Jazz Singer* in 1927, people probably thought motion pictures were advanced technology. But that movie, the first one to include human voices, revolutionized the art. Recently, the human voice made its appearance in computer games, and the same phenomenon may take place. *Space Taxi* isn't the first game to include voice synthesis, but it *is* the first to use voice as an integral part of the game. Amazingly, no

fancy or expensive speech module add-ons are necessary. The voice is right on the disk.

Space Taxi, designed by Rescue Squad creator John Kutcher, would be a good game even if it didn't talk. As the story goes, you used to be the hottest pilot in the intergalactic fleet, but those days are over. Now you're earning a living by driving an ordinary spaceship cab, taking impatient passengers from one end of the galaxy to the other. The perfect game for burned-out shoot-em-up fans.

Scattered across the screen are small landing pads with numbers on them. Your space taxi thrusts in four directions slowly, in response to bursts you give it with the joystick. Your job is to pick up, for example, a tiny figure on pad 5 and fly him over to pad 2. To land, you must drop the wheels by hitting the fire button.

We call it a maze game because the configuration of landing pads on the screen forms natural barriers that you have to fly around. Unlike in Pac-Man, where the maze guides you, in Space Taxi your cab tumbles to instant death if you touch any part of the maze.

The voices in the game are the passengers, giving you instructions on where to go. At the start of the game, the words, "Hey, taxi!" boom out of the television speaker loud and clear. When you land on the appropriate pad, the figure climbs into your cab and says something like, "Pad 9, please!" When (and if) you get there, he'll say, "Thanks!" and get out. If you land on a passenger's head instead of the pad, he'll say, "Hey!" After six or seven successful trips, a passenger will get in your cab and say, "Up, please!" A small opening appears at the top of the screen, and you can fly through it to get to the next level.

There are 24 different screens in all, each posing new, progressively more difficult obstacles. After getting past the first few simple screens, you'll be confronted by levels with magnets, lasers, shooting stars, force fields, minefields, and black holes that suck you into the center of the screen. The first killer is the sixth screen—called Taxi Pong—in which balls bounce through the maze. You can tackle the screens in order of difficulty or in a random order, so even the worst player can at least see every

one. If you make it through all 24 screens, you get to play a mystery screen. We'd describe it, but unfortunately we're not good enough to reach it!

S *pace Taxi* is consistent with its theme. You don't score points, you earn money—$5 per ride and $10 for the trip to the next level. You can also get tips depending on how fast you completed a trip and how skillfully you piloted your cab. If your fuel gauge gets low, you have to fill 'er up, and you have to pay for it out of the money you've earned. There's an onscreen dashboard that indicates speed, earnings, tips, and other vital information. If you've earned more than $50, you get to join the ranks of the Immortal Cabbies when your last cab crashes and burns.

Space Taxi demands more precise joystick control than just about any other game. This isn't a contest for people who like to zip around the screen and bump into things. You've got to have intense concentration and be able to make almost indiscernible adjustments of movement. The game is reminiscent of the old electricity game *Operation.* Up to four players can play *Space Taxi.*

The voice is very primitive. All the passengers sound like they have bad sore throats. Still, the fact that they speak at all is remarkable. Perhaps in a few years we'll have an even more true-to-life *Space Taxi*—passengers will get in the cab and you'll use your voice synthesizer to argue about politics and whether or not the Yankees have a shot at the pennant this year.
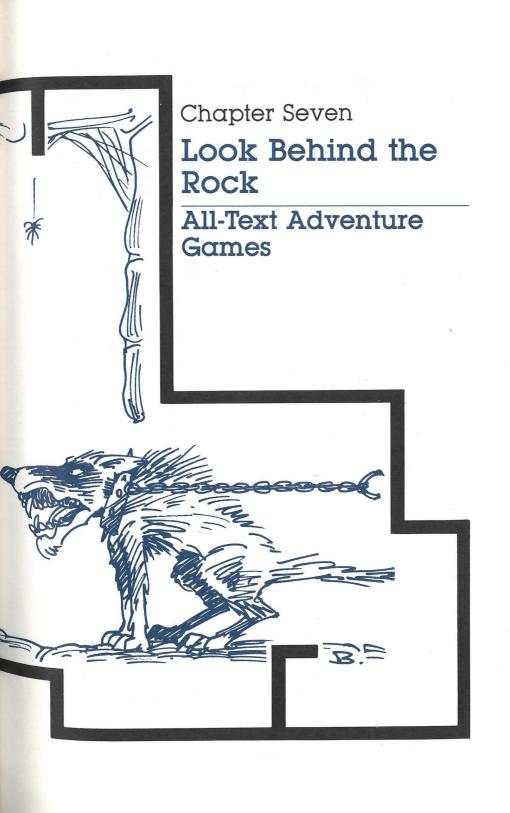
Compatibility: Commodore 64
Format: Disk
Manufacturer: Muse Software

Chapter Seven

Look Behind the Rock

All-Text Adventure Games

Look Behind the Rock

All-Text Adventure Games

These puzzle-oriented games all share a common ancestor, *Colossal Cave,* written by William Crowther in the late 1960s and expanded by Don Woods on a Stanford University mainframe computer in 1978. Often referred to as *Original Adventure,* it was played only by students on campus and others around the country who had access to the computer network via telecommunications. Even so, it became a legendary game. The wizards of Infocom were inspired by Crowther's creation when Marc Blank and other Massachusetts Institute of Technology (MIT) students wrote the original mainframe *Zork* in 1977, and so was Scott Adams when he wrote the first home adventure game, *Adventureland,* on a TRS-80 in 1978. The term *all-text adventure* has since become synonymous with the name Infocom, whose best games fill this category.

You don't play an adventure so much as participate in it. That's why they're termed *interactive.* The program describes a location and situation, and you type in a command. The parser interprets your command and displays the results. If you typed "go north," the description of the room which lies in that direction will be spelled out on the screen. It's almost like reading a book in which you're the main character and can determine what happens next. If your fire-button finger needs a rest, give your imagination some exercise with one of these.

Zork

The superstar of all-text adventures, *Zork* offers a unique miniuniverse filled with fantasy, suprises, and some classic puzzles. The prose borders on poetry and vividly depicts the quaint mythology of Zork, whose genuine history is equally interesting. While studying at

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MIT in the mid-1970s, a band of students programmed *Zork* as a single game that sprawled throughout the memory banks of the school's massive mainframe computer. *Colossal Cave,* the *Original Adventure* by William Crowther and Don Woods, had inspired them to create their own adventure, one with a more sophisticated parser that could comprehend complete sentences like "look behind the rock," rather than just two-word commands such as "look rock."

Until 1979, only other students and computer professionals with access to a terminal or mainframe computer could enter the magical realm of *Zork*. As the Apple II computer caught on, *Zork's* creators formed Infocom to make it available for home computers. With its hundreds of locations, though, the original *Zork* had to be broken into three different games. *Zork III* was fleshed out even further, and a cult of Zorkers sprang up across the country almost overnight. In *Zork I,* you'll discover the little house that hides an entrance to eerie caverns and canyons where fabulous treasures await. That's the goal of the game, to find a platinum bar, a crystal trident, and 18 other exotic treasures. Only by solving some mind-grinding puzzles are you able to reach the places where treasures are hidden. And then you often have to unravel another devious problem just to get hold of something like the elusive platinum bar.

All of *Zork I's* problems are quite logical, but their solutions are rarely obvious. Most involve the manipulation of various objects such as the rope, a wrench, and a bell. Others can be solved only by reciting the proper words. In a few cases, perception is vital. Objects are vaguely described and useless until their true nature is recognized. Clues are always offered in the text, but they are subtle and deviously worded. This makes it the kind of game that you'll think about frequently even when not sitting at the computer.

After finally figuring out how to get a grip on that platinum bar, for instance, you must store it in a trophy case inside the little house. Getting back to the house, however, is a problem, for someone slams the trap door and locks you inside as soon as you hit the stairs. Each time a treasure is stored in the trophy case, your score is

increased by 10 points or more. You're striving for the maximum score of 350. The current score and number of moves you've made are always shown at the top-right corner of the screen, and your immediate location is listed on the left side.

Life in *Zork I* isn't all gold and jewels, however. An insidious outlaw call the Thief lurks in the shadows. At the least, he'll jump you and steal any treasure you're carrying. But he's equally likely to jab you with a stiletto, and maim or kill you. Confrontations with this nearly undefeatable foe furnish some tense moments. Recently deceased adventurers will be immediately reincarnated in a distant location, their current inventory scattered throughout the land. But after three resurrections, you are dead, dead, dead, and you stay that way.

In this case, you can always restore a saved game. At any stage, an ongoing session can be saved to a separate disk. With a restored game, you pick up where you left off, retaining those hard-earned points and current inventory. Up to seven games can be stored on a single disk. *Zork* and other Infocom adventures also offer a feature called Script, which simultaneously feeds the on-screen text to your printer. The hardcopy can be studied later, a convenience usually missing in adventures from other manufacturers.

Once you've conquered *Zork I,* which is incredibly tough and may require the help of friends or hint books from various sources, you can take on *Zork II,* and eventually the third installment. These sequels won't even reveal what you're supposed to accomplish—the long-range goal proves to be the ultimate puzzle in these two. *Zork II* picks up on the far side of the impassable mountain range in *Zork I,* where you ride in a hot air balloon, rescue a princess, and come face to face with a fire-breathing dragon. While *Zork I* is reminiscent of *Colossal Cave* (whose Pirate provided the model for *Zork I*'s Thief), *Zork II,* with its tearoom and gazebo, has an *Alice in Wonderland* feel.

Here, you'll be baffled by the powers of the Wizard of Frobozz, a rascally fellow. He casts weird spells that hamper your progress, but you can learn to work magic, too. The good news about *Zork II* is that you don't have to

finish *Zork I* to play it. The bad news is that if you couldn't solve the first game, you don't stand a chance in *Zork II*, whose puzzles are interlocked more intricately. This means you can't get the object needed to solve one problem without solving a different puzzle—which proves impossible without obtaining a different object by solving yet another problem. Catch-22? Almost.

The Dungeon Master is the central figure in *Zork III*. Who's the Dungeon Master? That mystery is one that we're not about to give away here. Why spoil the climax of the entire series? Consider this revelation, though, before seeking the Dungeon Master: You're awarded points (a total of seven) for acting properly in a given situation, not for solving the problem. It's possible to rack up all seven points and never see the Dungeon Master or complete the game, in which case you can't claim to have won.

Zork III's ultimate goal is only hinted at and is difficult to achieve even when you realize what you're supposed to be doing. As in the previous games, mapping is important to avoid getting lost—especially in the insidious mazes, where adventurers have been known to wander around hopelessly for weeks. Though you don't have to play them in order, most adventurers agree that it makes sense to do so. You don't even have to completely finish one of these games, for a journey into the worlds of *Zork* offers a spellbinding experience unobtainable in any shoot-em-up and in few other adventure games. Just *being there* is half the fun.

Compatibility: Apple II, Apricot, Atari, Commodore 64, Commodore Plus/4, C/PM, Data General Desktop 100, Data General Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0, Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80 Model III, TRS-80 1000 PC, TRS-80 2000 PC
Format: Disk
Manufacturer: Infocom, Inc.

Planetfall

A legendary program, *Zork* remains the best-selling all-text adventure of all time because it's usually the first adventure game a new computer owner tackles. For many, it's also the last—*Zork*'s often too difficult for novice adventurers. If you've never played an all-text adventure, or if you've been stymied by mind-crushers like *Zork* and *Deadline*, join the Stellar Patrol and see the world described in this science fiction tale.

The Stellar Patrol is like "McHale's Navy" in outer space. You're a low-ranking Ensign Seventh Class assigned to swabbing the deck on the S.S. *Feinstein.* Suddenly, the vessel explodes, forcing you to abandon ship via an emergency pod which splashes down in the ocean on a strange planet. You have only a few moves in which to reach the pod before it's too late; you may still expire inside it or drown in the ocean if you don't think fast.

After making it safely to Kalamontee, one of the planet's two large islands, you won't have to worry about getting killed for awhile—unless you starve to death. One of this adventure's problems is finding a source of food, for the emergency rations from the pod don't last long. You'll also find a towel with the inscription "Don't Panic!" in the pod, laughable advice in your situation. Finding a safe place to sleep is also important. Otherwise, you'll pass out and be gobbled up by monsters. In addition to the score, the current time is posted at the top of the screen to remind you of how long it's been since you last ate and slept.

W hile exploring what looks like a giant scientific complex, with labs, workshops, and offices everywhere, you'll be confronted with a series of doors that don't use standard keys. They're opened with magnetic-stripped cards neatly hidden here and there. One door leads to an underground train that, if operated properly, carries you to another island with even more inexplicable secrets. As you spend more time in your explorations, you'll gradually begin to feel weak and sooner or later you'll keel over. Apparently, you contracted the disease that wiped out the population of this lonely planet.

All you have to do is find the cure for the disease, but it takes a lot more brainwork to repair the machines in certain control rooms. You score points for each successful repair job and for solving other puzzles along the way. The highest score possible is 80. And though they're relatively easy problems, even veteran adventurers will need a helping hand on two of them.

Enter Floyd, the most appealing character you'll ever meet in an adventure game. With the personality of a precocious five-year-old, Floyd is a robot whose recollections frequently shed light on the situation. He's also funny. Try turning him off and back on again—he throws a fit just like a child. It's impossible to play *Planetfall* without growing attached to Floyd, and the scene in which he gets killed is almost as devastating as when Bambi's mother was shot. It's like losing your best friend, or at least your pet dog.

You won't be able to complete the game unless Floyd dies, though, so you may as well buck up and get on with the task. But what *is* the task at hand? Ultimately, you'll put the bits and pieces of information together and realize what was really happening on this planet before your arrival. By consulting the local computer, you discover that a major scientific project was underway and that the planet's people are in suspended animation far beneath the surface. The equipment intended to revive them has broken down, and their fate is in your hands. (And your fate will be in the hands of a band of radioactive mutants if you don't outrun them in the game's pulse-pounding final scene.)

As with all Infocom games, you can save up to eight games in progress and use the Script feature to get a transcript of the text. The full-sentence parser, which understands 666 words, makes entering commands a breeze. Macintosh owners who play this and other Infocom adventures can tap the powers of the mouse, Notepad, and other unique features of their machine without leaving the game.

Planetfall's author, Steve Meretzky, started as an Infocom play-tester. Before they finalized a new game, he (and others) would play it for weeks, recommending ways to make it more fun, often suggest-

ing new puzzles and situations. With a background like this, he clearly set out to create an adventure written with the player in mind. The expansive layout of the two islands, with 105 locations, is easy to map and there are no mazes to get lost in, or at least not for days. Some of the objects needed to get the planet's machinery working are color-coded, simplifying the problem of which part matches what.

But it's not a neophytes-only game. Even master adventurers will enjoy the well-planned story, which sneaks in enough red herrings to give them a run for their money. And playing *Planetfall* is the only way you'll ever get to go adventuring with Floyd, interactive fiction's liveliest and most likable character.

Compatibility: Apple II, Apricot, Atari, Commodore 64, Commodore Plus/4, C/PM, Data General Desktop 100, Data General Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0, Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80 Model III, TRS-80 1000 PC, TRS-80 2000 PC
Format: Disk
Manufacturer: Infocom, Inc.

Hitchhiker's Guide to the Galaxy

Don't panic! You don't need to read the book to play the game. And even if you have read it, the adventure won't be easy. In case you've just returned from another planet, Douglas Adams's 1979 book was about a constantly befuddled English chap named Arthur Dent. Moments before a Vogon space fleet flattens the Earth, Arthur is lucky enough to thumb a ride on one of the ships and escape annihilation. His sidekick on the trip is Ford Prefect, who Arthur has just learned is actually an alien from the planet Betelgeuse. Ford is a roving researcher for the *Hitchhiker's Guide,* a sort of "see the universe on $5 a day" computerized travel book. The madcap novel describes their off-the-wall escapades enroute to a legendary planet called Magrathea. You play the part of Arthur, whose house is about to be demolished by a bulldozer in the opening scene.

Steve *(Planetfall)* Meretzky has adhered closely to the plot line, and anyone familiar with the book will have a slight edge in the first few scenes. If you can't figure out how to stop the bulldozer from reducing your house to rubble, get a copy of the book and flip through the first chapter for the solution. This applies to most of the problems that occur before you escape Earth's destruction by the Vogon fleet. Beyond this point, Meretzky and Adams have devised some mind-grinding problems that make the game tough no matter how many times you've reread the book. (Infocom calls it an Intermediate Level game, but it really reaches the Advanced Level by the end.) The babel fish, for instance, is necessary in order to understand the Vogons' speech so you can obtain a vital piece of equipment. In the book, Ford Prefect told Arthur to "Just put this fish in your ear." But in the adventure, the babel fish flies out of a tall machine when you push a button—and a team of cleaning robots keep snatching up the fish before you can grab it. You can reach the next phase of the game, onboard the spaceship *Heart of Gold,* without solving this problem. However, the game can't be completed without sticking a fish in your ear for at least awhile.

On the *Heart of Gold,* you'll meet Zaphod Beeblebrox, President of the Imperial Galactic Government. He's stolen the ship so he can find the lost planet of Magrathea. Other characters include Marvin the Paranoid Android, a woman named Trillian, and Eddie the ship's computer. None offers any assistance in problem solving. The pattern consists of a batch of fairly easy problems, then a real game-stopper that takes days to unravel. These can be fairly complex and often hinge on figuring out what to do with tools like the molecular hyperwave pincer and other offbeat gear.

Your best best is to ask the *Hitchhiker's Guide* when you get stuck for answers. It taps into a Sub-Etha-Net database light years away and answers relevant questions. (This is *Hitchhiker's* equivalent of the *Encyclopedia Frobozzica* in *Sorcerer.* If it can't give you a practical answer, the *Guide* often offers a funny excuse, such as, "Sorry, that portion of our Sub-Etha database was accidentally deleted last night during a wild office party.")

Hints are also offered within the game. Try to pick up or examine objects that are of no value in solving puzzles, and the program explains, "That's not important; leave it alone." After getting killed in the opening scene, you'll appreciate messages suggesting what you might have done to avoid death. Responses like "Useless, totally useless" and "Complete waste of time" usually keep you from pursuing absolute dead ends. You get a varying number of points for solving each puzzle—the maximum score is 400 points.

The galaxy's a big place, but you won't need to do a lot of mapping. There are numerous locations, but they're not spread out across a vast landscape as in *Zork*, so you follow a more linear path through the first stages of the game. From each major location (your house, the Vogon ship, the *Heart of Gold*), you can explore a number of others before finding the way to move on to the next area and its nearby rooms. The voyage changes dramatically, however, after you assemble a spare Improbability Generator on the *Heart of Gold*. Ever play Sierra's *Time Zone*, with its time machine? The Improbability Generator is employed for traveling through time and space in a similar fashion, but with two big differences. One, it operates randomly, so you never know where or when you'll end up after turning it on. Two, when arriving in a new location, you often materialize in the body of another character. This offers bizarre perspectives on the story, because you may wind up as Ford Prefect trying to help Arthur get off the planet back at the beginning of the game, or as a girl Ford tries to pick up at a cocktail party. You might even get to be Zaphod Beeblebrox, confronted with the problem of how to steal the *Heart of Gold* from a group of armed guards. Some of the major scenes and problems are interconnected in unusual ways that reward you for kindness as well as ingenuity.

As usual in an adventure game, there are plenty of ways to die. The cleverest is being bored to death by a "lethally dull woman" at a cocktail party. There's also a Ravenous Bugblatter Beast of Traall who wants to have you over for dinner—with you as the main course. And if the Beast doesn't kill you, you're likely to die laughing—

this remarkable piece of interactive fiction is as funny as
the book.

> **Compatibility:** *Apple II, Apricot, Atari, Commodore 64, Com-
> modore Plus/4, C/PM, Data General Desktop 100, Data General
> Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM
> PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0,
> Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80
> Model III, TRS-80 1000 PC, TRS-80 2000 PC*
> **Format:** *Disk*
> **Manufacturer:** *Infocom, Inc.*

Cutthroats

Michael Berlyn's second installment in the Tales of
Adventure series, *Cutthroats*, is a much more in-
triguing tale than its predecessor, *Infidel*. It takes place
on Hardscrabble Island and casts you as a washed-up
deep-sea diver living at the Red Boar Inn. Unlike *Infidel*,
a lonely game indeed, this story is populated with a
crew of lively characters who really come to life on the
screen. It starts when an old sailing pal drops by your
seedy hotel room one night and asks you to hold onto a
book that he says contains the location of two sunken
treasure ships in the nearby bay. You don't believe a
word he says, but get suspicious when he's murdered in
the alley immediately after leaving your room.

The following morning, someone slides a note under
your door. It invites you to a meeting with Johnny Red,
Pete the Rat, and the Weasel at the Shanty, a rundown
pub with lots of local atmosphere. This trio represents the
flotsam and jetsam of the island's out-of-work sailors, who
ask you to join them on a treasure hunt. Johnny whispers
that he's found some gold from one of the wrecks and
urges you to dive for the rest. But there are four ships in
the bay, and they don't know which one holds the trea-
sure. That's where you—and your dead buddy's book—
come in. You get a copy of the book in the package. It
has a color map showing where the wrecks lie and the
depth of the water. By cross-referencing clues from
Johnny with the map (and other information in the book),

you've got to determine which ship to dive for—the *Sao Vera* or the S.S. *Leviathan*. One's an old wooden sailing ship, the other a World War I luxury passenger liner.

Several clandestine meetings take place around the island, which is so small you won't have to map it. You'll soon cross paths with another character, McGinty, who wants to beat you to the gold. He's secretly working with a traitor in your group, and if you don't carefully avoid him, you may wind up with your throat slashed from ear to ear before you even set foot on the boat. As in *Planetfall*, you have to eat and drink occasionally. Otherwise, you become so weak it's impossible to move without falling on your face. At least you don't have to seek nourishment quite as frequently.

Before sailing (if you live that long) you've got to buy supplies from International Outfitters. A list of nautical gear—batteries, air compressors, shark repellent, and other items—is included with the packaging. Scuba gear can be found elsewhere. Get the proper gear, because you can't return to the island after setting sail. Choosing from the two rental boats is another key decision, since one is rigged for deep water and the other for shallower waters.

It's still possible to get your throat cut before the boat reaches the site and you dive for the treasure, but usually you'll be able to get to the sunken ship and attack the problems keeping you from the ship's valuable cargo. One ship is strewn with mines left over from the war, and you'll get trapped inside the other because its wooden ladder breaks and leaves you stranded below decks. Naturally, there are sharks and giant squids lurking in the deep, and these creatures view you hungrily. You might run out of oxygen, too—you can't surface for more. The game ends if you return to the ship without the goods. And unless you've discovered the traitor's identity and put him out of action—he can't be killed!—you'll have a nasty surprise even if you do find the treasure and bring it up to the boat. The maximum score is 250 points, and after completing the game, you can restart it and dive for the treasure on the other ship. One is full of gold coins; the other holds a rare stamp collection. Different tools and techniques are required to solve each ship's problems.

Speaking of problems, the ones on land are reminiscent of those in *Suspect* and hinge on figuring out what the other characters are up to. The problems you'll face on the sunken ships are based on having the right equipment and knowing what to do with it. They're not as difficult as those in *Zork,* but are still challenging. Part of what makes this such an entertaining game is the balance between object- and character-oriented problems and situations.

The most outstanding aspect of *Cutthroats* is its emphasis on interacting with the other characters in the story. They move independently and are much more substantial than the simple one-dimensional characters often found in adventure games. The experience of playing *Cutthroats* is closer to actually participating as the protagonist in a real story than anything ever seen from this side of the monitor. This quality distinguishes the game as the finest example of fiction on the interactive bookshelf.

Compatibility: Apple II, Apricot, Atari, Commodore 64, Commodore Plus/4, C/PM, Data General Desktop 100, Data General Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0, Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80 Model III, TRS-80 1000 PC, TRS-80 2000 PC
Format: Disk
Manufacturer: Infocom, Inc.

Earthly Delights

E *arthly Delights* is a detective story that doesn't cast you as a detective or police officer. Instead, you're the victim of a burglary. A wealthy uncle has just died and left you nothing but a work of art, named *Earthly Delights* by the obscure artist who painted it. In his will, the uncle instructed that you "never part with her." This background material is conveyed in a few paragraphs of introductory text, which then tells how a mysterious individual dropped by that very afternoon and offered $75,000 for the painting. Something didn't seem kosher, so

you showed him the door. As the game gets underway, your vague suspicions are confirmed when someone breaks in and steals the painting.

The all-text presentation is divided into five chapters, the first called "A Noise in the Night." Depending on your reaction to that noise, you may or may not have a run-in with the burglar. If you don't dash out to investigate, you may never even lay eyes on him (or her). You won't see the painting hanging in the living room when you finally do go to check it out, either. Bold adventurers will jump right out of bed and run into the room; more cautious players may choose to tiptoe down the hall. Either way, if you act soon enough you'll find a karate-trained desperado toting a bagful of burglary tools. He's tough to defeat in hand-to-hand combat, but you won't have any trouble finding the clue he accidentally leaves behind.

Regardless of whether you emerge victorious or get beaten to a pulp, the clue leads you to Paris, where Chapter 2 begins. Descriptions are detailed and colorful as you wander down the boulevards of Paris. Old men in berets, countless poodles, and other interesting citizens pop up now and then to stroll down the street, but you don't really get to talk or interact with most of them. The layout is much like the real city—you'll get to visit the Eiffel Tower, the Louvre, the Folies-Bergère, the Montmartre district, and Napoleon's Tomb. In one place, you learn that an exhibit of paintings by the creator of *Earthly Delights* was recently stolen. It turns out to be the work of a gang of international criminals, armed with a master plan straight out of a James Bond movie.

You can type in a request for help in some situations, in which case hints are displayed in the form of literary quotes from Robert Frost, Victor Hugo, and other classic authors and poets. Sometimes they're clear, other times the clues are vague. In Paris, for example, Ernest Hemingway advises that "Paris is a movable feast." This suggests that a visit to Shecky's American Bar & Grill might pay off. It's not completely an all-text game, for punctuation symbols are employed to sketch low-resolution graphics in a few scenes. In Chapter 1, your apartment's floor plan is displayed, which means you don't have to map this area. Simple sound effects are also included.

The vocabulary seems fairly extensive, though the
parser is the two-word type usually seen only in graphic
games. It's a bit more sophisticated than most, though.
When your command contains a word not in the game's
vocabulary, the program often answers, "I'll try to do
what I think you meant." Type in the command "Kick the
thief in the shin," for example, and (if the burglar is
present) the program responds with the appropriate
text—despite the fact that it doesn't recognize the word
shin. This happens because the parser is designed to
comprehend that you're expressing a desire to act
aggressively. Sometimes, though, it gets confused and
misinterprets your command. For example, no matter
what you want to look at in the apartment, the program
assumes you want to see the floor plan again. You can
talk to and question the most important characters in the
story, though, by saying things like, "Ask burglar about
plan."
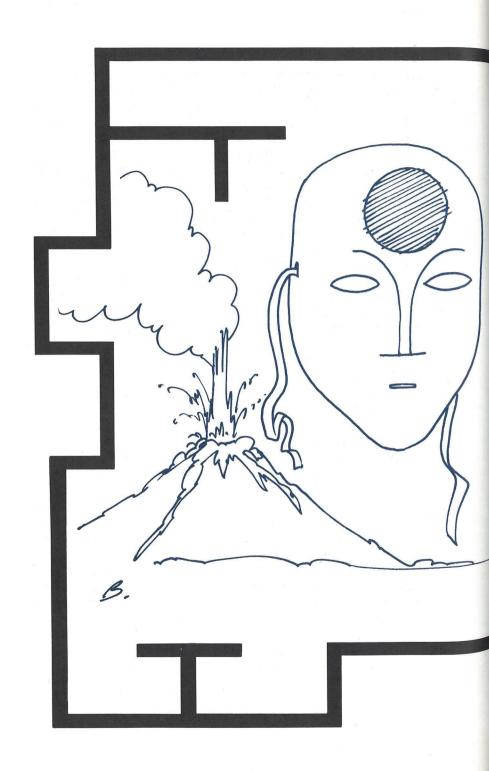
It's possible to move in the eight directions common
to all-text adventures, as well as in, out, up, and down. As
is typical, you can indicate these with abbreviations. The
IBM's function keys are available for commands like
picking up and examining objects and checking your in-
ventory. You can also get a hardcopy of the game.
Earthly Delights's best feature, in fact, is its readability.
The prose is well-written and describes reasonably in-
teresting problems. No points are awarded for solving
them, so you're never sure of exactly how much progress
has been made at any stage, except when you make it
to the next chapter. The chapter-by-chapter structure
gives it the feel of real interactive fiction, but there's no
real emphasis on the characters as in *Cutthroats.* And
though this mystery can't compare with *Deadline,* disk
drive detectives who want to keep their investigative
skills in shape may get a few kicks from cracking this
case.
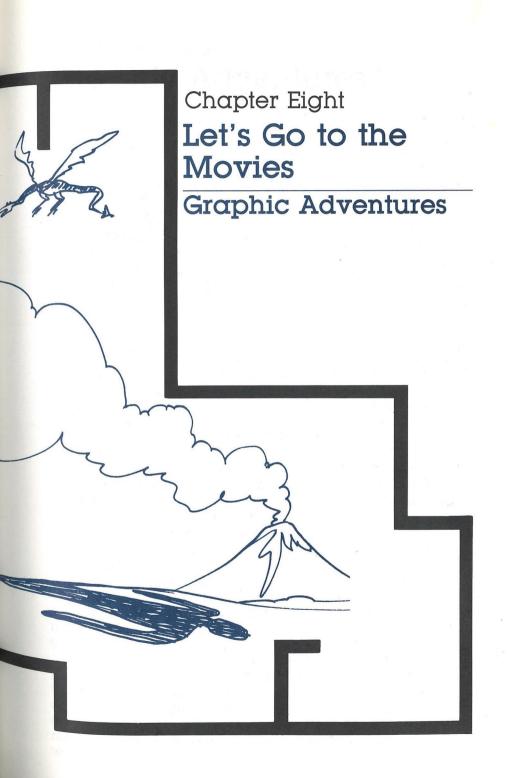
Compatibility: Apple II, Commodore 64, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Datamost, Inc.

Chapter Eight

Let's Go to the Movies

Graphic Adventures

Graphic Adventures

By early 1980, Roberta Williams had solved Crowther and Woods's *Original Adventure* and decided to write her own. She promptly put her own stamp on the face of computer games by presenting the story with pictures rather than all-text descriptions. Williams created the plot and puzzles and drew the pictures for *Mystery House,* while her husband, Ken, wrote the code in their California living room. The game was so well-received that they formed one of the first computer game companies, Sierra On-Line. Since then, Sierra has become a major force in producing all sorts of software, from games to home applications like *Homeword* (the official IBM PCjr word processor). And countless other programmers and designers have crafted hundreds more graphic adventures.

Because pictures tell the story, with a minimum of words displayed at the bottom, the experience is more like watching a movie than reading a novel. Items used to solve puzzles are often named in the text section, which helps adventurers using a lower-resolution color TV. Parsers in most graphic adventures aren't as sophisticated as those in all-text games; many are limited to interpreting two words at a time. But as more memory and disk space become available to programmers (the pictures eat up a lot of memory), we're beginning to see more full-sentence parsers with larger vocabularies in graphic adventures.

In addition to a solid plot with definite characters, puzzles that aren't usually as difficult as those in their all-text cousins, and an effective parser, a great graphic adventure is judged on its artwork. Some go for a cartoonlike effect, others paint their pictures with fine hi-res brush strokes that look good enough to hang on the wall. Whatever your artistic taste, one (or more) of these

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masterpieces will look good hanging on your computer's screen.

Dragonworld

Based on characters from the novel of the same name, *Dragonworld* was produced by the book's authors, Byron Preiss and Michael Reaves, at Byron Preiss Video Publications. It's the story of a young dreamer named Amsel, who travels to the land of Simbala on a mission to rescue the Last Dragon from an unknown enemy who has drugged and kidnapped him. The presentation is drastically different from previous graphic adventures. Instead of each location appearing as a full-screen illustration, several parts of a scene are depicted in one to three small color pictures at the top of the screen. Below, text fills 14 lines. Sometimes, all 14 lines are used for a single description, more than usual in graphic games. A more subtle difference is that all the clues are hidden in the text, not in the pictures.

One of the three pictures might show Amsel, while the other two depict parts of a room. When you examine something, one of the pictures often disappears and is replaced with another subject. Occasionally, two or three are combined for a panoramic effect. It's an interesting innovation, and the result is that *Dragonworld* feels like an illustrated all-text game. This is natural, since Preiss made his mark by publishing illustrated novels of noted science fiction authors.

Another interesting feature is the availability of several routes to key locations. If you untie the boat in the first transportation to Simbala, you can swim, and use a magic orb called the Dragonpearl to teleport to safety when death by drowning seems certain. Since there are several paths to important locations, you won't run into as many game-stopping stone walls. Inventory management is no problem, because you can carry an unlimited number of objects. And though coldrakes (deadly dragons once ruled by the Last Dragon) and the assassins of Castle Doomhaven may attack, it's not easy to get killed in *Dragonworld*. That doesn't mean it's impossible. Something else to keep in mind is that there's no instant reincarnation when you do get killed.

There are plenty of places to visit after crossing the Strait of Balomar, and a minimal amount of mapping will be required. (The program fills both sides of three disks.) After meeting up with Hawkwind, a Simbala monarch, you'll journey to Kandesh. Armorers, tailors, alchemists, and other merchants await, and you've got to collect the correct gear before proceeding. There's plenty of lively music, especially for Commodore owners, in numerous scenes, and three animated action games are part of the overall scenario. All can be played with either joystick or keyboard.

The first action game,"Bogs and Bats," is a slow-motion shoot-em-up that's a complete waste of time. Three or four waves of bats attack, but you wind up with the same result whether they're all killed or not—you don't even have to play this minigame to complete the adventure. The other two are more crucial. "Dragonstones" is a gambling game in the Kandesh bazaar. Colored stones fall from the top, and you must move a cursor to hit the right ones. It's fairly simple, and you've got to win enough tsalmas to buy all the necessary equipment. "The Maze of Madness" is the trickiest and must be completed in order to reach the Last Dragon's place of captivity. A tiny figure has to be guided up and down randomly disappearing stairs and through the maze. If he slips off the side, you have to start over at the bottom. It's also the only one of the three that's interesting as an arcade-style game. You'll have to practice to get good. (There's a practice option for all three games.) Even with their problems, these action minigames are leagues ahead of similar games included in other programs, such as Penguin's *Coveted Mirror*.

Though it's a graphic adventure, this game's most interesting aspect is the text. It conjures up an atmosphere that's truer to the feel of fantasy fiction than 99 percent of fantasy role-playing or adventure games. The world of Simbala doesn't seem real, but the story makes you want to believe it could exist. The parser is the weak point and occasionally takes its time analyzing commands. This is especially true when multiple commands are entered simultaneously. It accepts fairly complex sentences, but responds, "Please try rephrasing that," if it doesn't

understand your command. This isn't as helpful as parsers which point out *where* the problem lies. *Dragonworld* and the other Telarium titles were developed with a language/system called SAL, devised especially for programming adventure games. Overall, the parsing is better than in most graphic adventures.

Though the Telarium theory of adventure games consists of replacing object-oriented logic problems with character-based situations, there's really not much difference. You're still grabbing gems, crystals, and swords; breaking down doors; and so on. When it's necessary to talk with other characters, you can only say "ask woman" or "talk prince." Admittedly, you have to act in character with Amsel in a few scenes, not manipulate objects. And the effort to emphasize characterization is strongest in this title. If you're a fan of fantasy literature and prefer graphic adventures over role-playing games, you should enjoy a trip to *Dragonworld.*

Compatibility: Apple II, Commodore 64, Macintosh, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Telarium (Spinnaker Software)

Fahrenheit 451

If you didn't read Ray Bradbury's novel and managed to miss the movie, *Fahrenheit 451* concerns a fireman of the future. Working for a fascist government which rules America in the year 2067, the fire department burns books instead of putting out fires. The novel wound up with the protagonist, Guy Montag, deserting the 451 Patrol to join the underground, people who memorized books. People *became* books to insure that the works wouldn't be lost forever to the flames.

You play the part of Montag as he sets out to find the rebels in New York City. Thus, the game is a continuation of the novel rather than an adventurized version of the original story. Montag, a holographic wanted poster informs you, is the subject of a city-wide manhunt aided by deadly Mechanical Hellhounds. An old man outlines exactly what must be done in order to stay alive long

enough to liberate a stockpile of books from the 451 Patrol. You've got to get a mask, a lighter, a new chemindex, do something about your fingerprints, and find a contact named Ray. Because the 451 troopers and Hellhounds patrol the streets at regular intervals, there's a realtime aspect to the game, and you have to check the time frequently to avoid them. Also, a key rebel named Ungar is at home only during certain hours, and some shops aren't always open.

The geography covers Fifth Avenue and two bordering streets, each about 20 blocks, or locations, long. A subway and underground tunnels are also available for getting around town. The rebels can be found working in the stores, churches, hotels, and other buildings that line the streets, but they won't assist you unless you have the lighter as a signal that you're on their side. Most of them will provide more help if you quote the right lines from the book each has memorized. This is basically a fancy version of the way *Wizard and the Princess* and a few other adventures employ magic words. If you're stuck, try calling Ray, which is actually the personality of Ray Bradbury. "Ask about" an author, and Ray gives you the correct quotation. He'll also tell you things about himself, the real Bradbury, but the responses don't have anything to do with your questions. You also get to access Montag's memory, a unique ability in an adventure. This is done by typing "remember." A few fragments of his past appear. These are often evocative and quite poetic, especially the memories of his girlfriend, who he thinks died in a blaze set by the 451.

The graphics appear in panels like those in *Dragonworld,* and the sound effects and music are excellent. Those in the Apple version are not as sophisticated, but are still effective. Coded clues in the manual don't give away the answers, but instead tell you where to look for them. This is a unique and commendable way to dole out help, because you can't just race through the game by decoding the clues.

Fahrenheit 451's problems are object-oriented, with clues hidden in the text, not in the pictures. At least there aren't a lot of red herrings (pointless problems and objects deviously added to steer you in the wrong

direction) in this adventure. Another plus: You won't have to restart or restore a saved game to go back and get a crucial object missed in the first stage of the story. This happens frequently in adventures like *Blade of Black-poole,* where the path from the first stage to the next is a one-way road. In *451* you never have to worry about this predicament. As in other Telarium games, there's no score involved. The idea is to approximate the feel of an interactive book rather than to set up a contest with the goal of scoring points.

Bradbury worked closely with scriptwriter Len Neufeld and the programming design team at Byron Preiss Video Publications. He even wrote a lot of the actual text. As a result, it's some of the best you'll ever read in a graphic adventure. There's no evidence of Telarium's idea of character-based situations and problems here, just a series of interlocked puzzles. Even so, you become involved with the story and Montag's situation. The troopers and their Hellhounds keep killing you and ending the game, which produces a desire for revenge. Strangely, that's more motivating than the simple desire to solve the problems. *Fahrenheit 451* is easily the best science fiction scenario in Telarium's lineup and one of their most engaging games.

Compatibility: *Apple II, Commodore 64, IBM PC, IBM PCjr, Macintosh*
Format: *Disk*
Manufacturer: *Telarium (Spinnaker Software)*

The Mask of the Sun

Playing an all-text adventure can be compared with reading a novel in which your input directs the flow of the story. Participating in a graphic adventure is more like watching an interactive movie. With bold colors, well-orchestrated sound and music, and animated special effects, *Mask of the Sun* conjures up a unique cinematic experience.

The Ultrasoft team programmed it in Ultra II, a language they developed exclusively for writing graphic

adventures. This adventure's plot was inspired by the film *Raiders of the Lost Ark.* Its main character, played by you, is a freewheeling archeologist named Mac Steele. According to the documentaton, you've just been poisoned by a mysterious green gas that was released from some Aztec jewels you were examining. Doctors have prescribed some pills to allay the painful symptoms of an incurable and fatal disease brought on by the gas. But after studying some ancient legends, you realize that your only hope for a lasting cure is to travel to Mexico and find the Mask of the Sun, a fabulous gold artifact of the Aztecs.

The first scene of this "movie" takes place at the airport outside Mexico City, where your plane has just landed. A driver named Raoul and Professor Perez greet you. Perez offers you a map showing three archeological sites where the Mask might be found, crumbling pyramids from the ancient Aztec civilization. Then, you jump into the jeep and Raoul follows your directions into the countryside.

Special effects kick in as you and Raoul roll along the jungle roads. A typical graphic game would simply show a picture of the scene and wouldn't show the next one until you entered a command to move forward. In *Mask,* your view of the road isn't that static. A series of vividly painted jungle scenes are displayed, each remaining onscreen for a few seconds before you see the next stretch of road and tree-filled jungle, where parrots squawk and monkeys chatter noisily. Distant mountains grow larger as you penetrate this forbidding and beautiful landscape—the effect is similar to what you'd see if actually riding through the Mexican jungles. When you reach a crossroads or a place that might be worth investigation, the animated sequence stops and you're prompted for your next command.

When you enter the pyramids, this three-dimensional animation effect is employed to show the walls of the long stone halls as they seem to move past you on either side. In the pyramids, you may discover Aztec treasures of gold, silver, and jade. Don't count on simply scooping up the loot and heading for the jeep.

Like Indiana Jones, you'll have to confront some deadly enemies in order to wind up a hero—or even walk away breathing. Rib-crushing snakes and a pistol-packing tomb-looter named Franciso Roloff are only two of your problems. If dealt with properly, characters like the old woman in the roadside hut may even help you. Some of the problems you must solve aren't the logical kind common to adventures, but instead depend on hand-eye coordination. In the most tense scene, you have to cross an animated lava flow by hopping onto a rock which appears a split second at a time. You'll have to hit the appropriate key at precisely the right instant. There are also several riddles, whose one-word answers must be figured out before you'll ever get your grubby hands on the mask. You'll have to map the jungles, which are fairly extensive. Maze lovers get a chance to get lost in a pair of unusual labyrinths.

The parser makes things easier by understanding complete sentences such as "shoot Roloff with the gun," and permitting you to type in several commands at once. It has a fairly large vocabulary, but it isn't as articulate as those found in Infocom adventures. For a graphic game, however, the Ultrasoft parser is outstanding. You can also save up to four games in progress on another disk (particularly recommended before attempting to get past the lava scene).

A difficult game, *Mask of the Sun* has still been solved by a few relative newcomers to adventuring. Several red herrings (things like keys and pyramids which serve no purpose except to lead you astray) must be identified and ignored, and persistence and experimentation, as usual, are the keys to success. When you've finished this one, take a shot at *The Serpent's Star*. Much like *Temple of Doom* was to *Raiders*, this prequel takes Mac Steele on a jaunt to Tibet long before he—and you—embarked on your search for the Mask of the Sun.

Compatibility: Apple II, Atari, Commodore 64
Format: Disk
Manufacturer: Brøderbund Software, Inc.

Lucifer's Realm

Zork I has its Thief, Cranston Manor its killer toy soldier; most adventures have at least one deadly villain. Lucifer's Realm is populated by more than its fair share, however, and the cast includes genuine bad guys like Adolf Hitler and the Reverend Jim Jones of Jonestown, Guyana, infamy. They have one thing in common—all are dead and consigned to an eternity in Hell.

In the opening sequence you get killed. From a hospital deathbed, you go to Judgment in the clouds and definitely don't get sent to Heaven. The next scene, where the game really begins, finds you on a ledge overlooking a fiery pit. The illustrations in this game are excellent, with rich colors and sharp hi-res graphics in every scene. Movement can be in any of four directions, but you won't go anywhere without solving the first problem. This leads to a billboard where Lucifer reveals the plot. Hitler, it seems, has raised an army to overthrow the devil. If you can help him defeat Hitler, he'll set you free.

Problems are all object-oriented, with the usual ropes, lamps, and swords. Magic words are thrown in, too. But they're tough problems. You'll sometimes work for hours to get into a room, then immediately face another game-stopping situation. You don't get to interact with the people as in Cutthroats and other examples of true interactive fiction. Creeps like Adolf Eichmann and John Wilkes Booth simply block the doors, and will kill you if you hang around too long without figuring out how to get past them. Appropriately, Jim Jones forces you to drink poison. There's one unique advantage: Because you're already dead, you can't really get killed. You merely start over at the ledge scene, and conveniently get to keep your entire inventory. It's a big world, so mapping is important. There are scattered sound effects and no points or score. You cannot get a hardcopy of the game in progress.

The presentation matches that of The Institute, for Lucifer was created by the same team. (Produced/written by Jyym and Robyn Pearson; programmed by Jyym with Norm Sailor; graphics by Rick Incrocci.) Pictures are full-screen, but when you hit Return or enter a command, it

switches to an all-text screen that describes the room, visible objects, and your inventory. If you examine an object or room, the description appears at the bottom of this screen. When an action produces a fresh picture, any new text can be seen under it. But you still have to jump back to the other screen to read about visible items.

C ommodore gamers will find that new pictures are loaded faster than with any other adventure—five seconds flat. In comparison, Telarium's 64 games load new scenes in 10–30 seconds, and Brøderbund's *Mask of the Sun* takes 10–20 seconds. You spend less time waiting, because the new graphics are loaded almost as quickly as the Apple version of most adventures.

However, the two-word parser leaves a bit to be desired. Multiple commands are not permitted. The limited vocabulary isn't uniform, so you must often use different words for the same action. This means that in some rooms you can say "U" to go up, while in others only "climb" works. After getting past Eichmann, you see a stone stairway to the east. But you cannot "go east" or "go stairway"; only "climb" gets you there. Conversation is limited to saying "talk man" or "listen man." Many problems can be solved only with an exact set of words, requiring extra mental effort and synonym hunts.

Anyone new to adventuring could find this exasperating. Masochistic veterans may relish the challenge. All will admire the brilliant graphics.

Compatibility: *Apple II (48K), Atari (48K), Commodore 64*
Format: *Disk*
Manufacturer: *American Eagle Software*

Mindshadow

A ctivision, best known for *Pitfall* and other arcade-style videogames, released its first adventure game in 1985. To some people's surprise, *Mindshadow* featured more impressive illustrations than those seen in graphic games from some of the software houses which specialize in adventures. *Mindshadow* also embodies a more

substantial plot than a lot of interactive entertainment. Marooned on a desert island—and not Gilligan's, either—you don't remember your name or how you got there.

The main goal is to recover your memory by escaping the island and traveling to Europe, where you encounter a string of characters from your mysterious past. One little man screams, "It wasn't me who betrayed you on the Tycoon," and other people say and do things suggesting you were involved in some sinister scheme. It's a well-structured story that reveals the plot in bits and pieces the way Robert Ludlum did in *The Bourne Identity*. This pulls the player into the tale, which would be a real page-turner had it been a novel.

Though dubbed an Illustrated Text Adventure, *Mindshadow* is really a standard graphic game: full-screen illustrations and five lines of text at the bottom. (*Illustrated Text Adventure* is just another new marketing term for graphic adventure.) The detailed hi-res art employs various colored patterns quickly splashed across the screen in the same manner as *The Quest* and other Penguin adventures. A stylistic sense of perspective distinguishes the illustrations and qualifies them as true computer art. Another feature from Penguin games is available: You can hit the Return key to toggle between the picture and a screenful of text showing the most recent commands and responses. Spot animation kicks in intermittently. Seagulls flap their wings in the sky; when a sleeping bum snores, a trail of Z's spirals to the top of the screen. Drop an object and it's displayed in the middle of the screen. No sound effects are heard.

The geography is extensive. Mapping proves necessary at times, especially in the island's mountains. After exiting the island by hailing a ride on a pirate ship, you find that your next subgoal becomes stopping the ship so you can get off. A series of escapades in England, Luxembourg, and across the Continent follow. Assassins enter the picture as you get closer to unraveling the mystery, and there's no instant reincarnation. When you die in this game, the program reboots automatically.

Problems are all object-oriented, with rocks, ropes, and, of course, the mandatory cave. Inventory is limited

to eight items, but most are used only once. Clues are hidden in the pictures, and hints sometimes appear in the text. None of the problems is exceedingly hard. There aren't many red herrings to throw you off the track. On three occasions, you can request help from the Condor, a bird which offers general or specific advice on the situation. Sometimes, it will just tell you to think for yourself.

The word *think* is even in the game's vocabulary. You may say "think about *(a particular subject),*" but usually find out that you don't remember anything important. The vocabulary isn't large, but the parser is above average. You can use multiple commands, direct objects and prepositional phrases ("tie rope to vine"), and pronouns. If you try to "get *(object)*" and the word isn't in the game's vocabulary, the parser points out the problem word; but if you *look* at the same object, the parser simply says, "You see nothing unusual." Still, it's smarter than parsers found in most graphic adventures.

When you backtrack to a previous location, an innovative feature saves plenty of time. Just type the directions—E.S.S.W., for example—and you're transported directly to the destination without having to view every picture along the way. One quirk: If a command is appended to the directions, the program executes it first. This means you can't go "N.W. Get hat." The Commodore and IBM function keys have been reconfigured to execute common commands such as save, restore, talk to, look at, get, drop all, and others. (The IBM version of Datamost's *Earthly Delights* also incorporates the same device, even using some function keys for indicating movement.) Another key enables you to quicksave the current position without assigning it a number, then quickload it later. Apple users can press the Shift key and the appropriate number for the same effects. All versions allow you to save up to ten games in progress on a separate disk. These features, plus fast-loading graphics, make *Mindshadow* a pleasure to play.
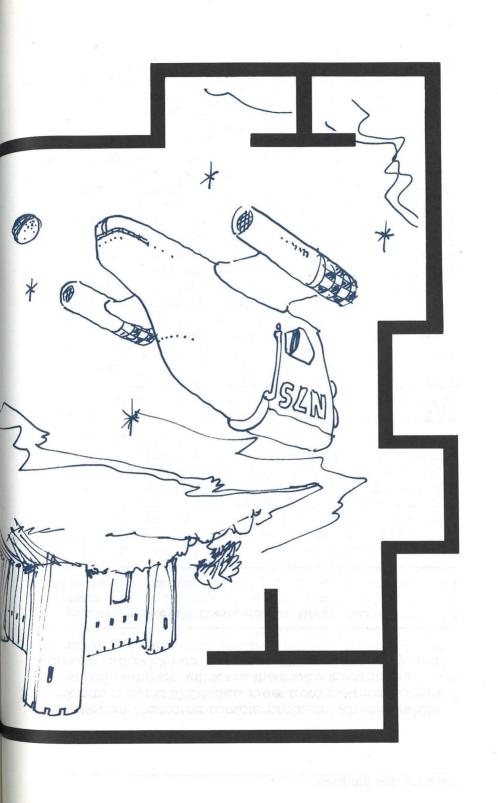
The same features also make it a game highly recommended for novices. The other side of the disk even has an online tutorial on solving adventures, in which a sequence of all-text screens explain the concepts
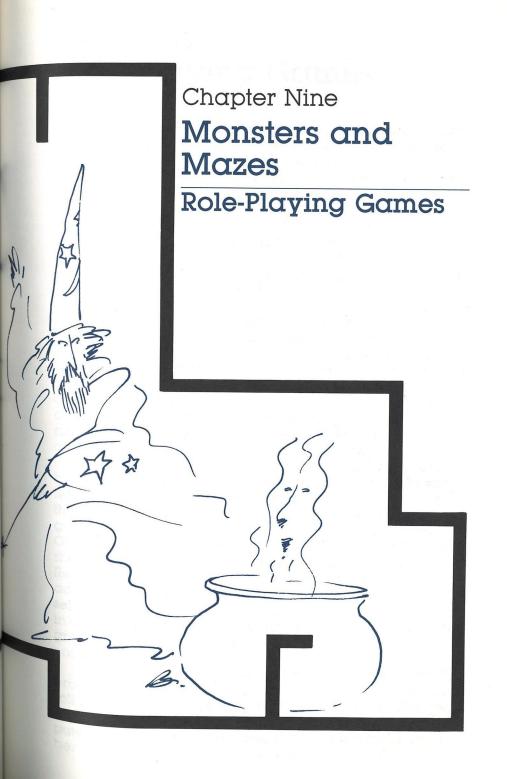
and offer an illustrated sample problem. Anyone really stuck can order a $1.00 clue sheet from the manufacturer. Skilled adventurers will force their way through the game in a day or two, but may still enjoy the story and attractive graphics.

Compatibility: Apple II, Commodore 64, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Activision, Inc.

Chapter Nine
Monsters and Mazes
Role-Playing Games

Role-Playing Games

Fantasy role-playing games are not true adventure games, despite hundreds of misleading ads, game reviews, and the descriptions you might have read on the backs of software packages. They do share certain similarities—the reason for all the confusion. Both categories involve exploring a maze or a vast unknown territory in some far-flung fantasy world, often in search of treasure, the village bozo who's managed to get kidnapped by an evil magician, or the local version of the Red Brigade. And mapping is important in both types. In a role-playing game, however, you win by killing dragons and looting ancient civilizations, not by solving logical puzzles. The emphasis is on sword-swinging, spell-casting action, with countless battle scenes whose outcomes are quickly calculated by the computer.

Instead of keying in words or sentences interpreted by a parser, you'll press a key to indicate your character's action. *P* might mean parry an opponent's saber thrust; *I* could mean inspect the immediate vicinity. Some games, like *Wizardry,* display a minimenu of options. Others may pause when you punch the proper key and show a list of commands to refresh your memory. Regardless, you won't have as many options as in most adventure games. In adventures, you're projecting yourself into an interactive story. Role-playing games put you in control of one or more characters created by the program. The difference is subtle, but distinguishable nonetheless.

In a role-playing game, you key in a name, and the program "rolls" the character in the same manner you'd roll a set of dice to accomplish the same task in Dungeons & Dragons (the common ancestor of *all* role-playing computer games). Each character receives a random number of points for attributes like strength, intelligence, and

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charisma. Hit points are also rationed. When a charac-
ter's wounded, a few hit points are subtracted from this
factor; if he or she runs out of hit points, call the role-
playing undertaker. The character gets additional expe-
rience points for coming out on top in confrontations with
such foes as a bloodthirsty Xuluui high priest, rampaging
Antman, or other maze-dwelling monster. All characters
generally start as Class One characters and advance to
higher levels upon accumulating enough experience
points. Extra experience points also give you an edge in
combat.

These elements explain why role-playing games
evoke a significantly different experience from adven-
ture games, even though the spirit of adventures is
present in every good role-playing game. Stealthily stalk-
ing down the halls of death in a solid role-playing game
could bring out the Indiana Jones in Liberace. Watching
characters develop and grow to mighty warriors pro-
vides a rare kind of satisfaction. With groups of charac-
ters, the experience can be like managing a baseball
team that swings with long swords instead of bats. Seeing
a character die after a few months on the trail of a
particularly nasty dragon can be a sad occasion, es-
pecially after you've already accepted the character as
part of your extended family. That's the breaks in the life-
and-death world of role-playing games. If you'd rather
slay dragons than solve puzzles, grab a sword and ex-
plore—at your own risk—any of these classic fantasy
worlds.

Wizardry: Proving Grounds of the Mad Overlord

A legend in its own time, *Wizardry* is the quintessential
role-playing game. Since 1981, *Proving Grounds of
the Mad Overlord* has never fallen off the best-seller lists
and remains the standard by which new monsters and
mazes games are measured. This success story can be
partially attributed to the fact that several years of
programming and play-testing went into *Wizardry* before
it was marketed.

In *Proving Grounds of the Mad Overlord,* you'll enter
a forbidding maze in search of wicked Werdna and the

magic amulet he stole from Trebor, the mad Overlord. The maze, actually ten levels deep, represents the fearsome dungeons of Trebor's castle. (Werdna and Trebor are actually the names of the game's programmers—Andrew Greenberg and Robert Woodhead—spelled backward.) This program contains the character generator which "rolls up" the wizards and warriors who will make up your band of explorers.

The game begins in Trebor's castle, which consists of several menu-driven phases. At the Training Grounds, you're guided through the process of creating up to 20 characters and saving them on the game disk. They can be elves, humans, dwarves, gnomes, or hobbits. Depending on their attributes (Strength, IQ, Piety, and similar characteristics), new characters can be designated as Fighters, Mages, Priests, Bishops, or Thieves. After attaining enough experience points, characters may change classes to become ferocious fighting machines called Ninjas, Samurais, or even spell-casting Lords. Or you may find it more useful to transform a Mage into a Fighter at a later stage of the game. That's one of the appealing elements in *Wizardry*, the freedom and flexibility it affords the player. After this phase, you select G from the main menu and visit Gilgamesh's Tavern to organize a party of up to six of the characters. Then it's off to Boltac's Trading Post for swords, armor, and magic spells before entering the maze.

Inside, you'll see a three-dimensional view of long corridors leading in several directions. These graphics fill a small square display on the top-left side of the screen, and a menu on the right enables you to type F to move forward, R for right, and so on. Whenever you do so, the halls seem to move on either side as though you're actually walking along inside Trebor's dungeon. The names of your gang are listed at the bottom, along with their current number of hit points and other useful information.

When you bump into a pack of Bushwhackers or a band of Undead Kobolds, the creatures' pictures fill the space formerly occupied by the view of the hall. It's not animated, simply a high-resolution color graphic. A combat menu displays in the middle of the screen, offering options for your troops. When a character's name is

displayed, you must press a key to choose whether he or she will attack with a sword or other hand weapon, cast a spell, parry an attacker's blow, or run.

The battle commences once you've finished giving orders. A text line in the middle of the screen reports on each assault and its effect on the enemy. The attacks of the monsters are also briefly described. If you annihilate them, each member of your party collects experience points and a share of the gold carried by the creatures. Sometimes, you'll discover a box, which often holds gold, magical weapons, or other items that can't be bought at Boltac's place. If you don't need them, they can be sold to Boltac so you can buy more essential gear. Just hope the box isn't booby-trapped!

After locating the stairs leading back to the Castle (you did remember to draw that map, didn't you?), you'll find a visit to the Adventurer's Inn most refreshing. Here, your weary party can rest and learn how many more experience points are needed to attain the next level. When a new level is reached, the character usually gets extra points added to some of his or her attributes (though occasionally the character loses a few). Spell-casting characters always learn a few more spells when moving up a level. Spells are vital to success in *Wizardry*. At the outset, Mages and Priests can cast only two spells each before their magical powers are exhausted. But as your characters grow in strength and experience, they'll learn more of *Wizardry*'s 50 spells. The manual contains brief information on the effects of each incantation, but you still have to rely on trial and error to discover which ones work against which creatures. Victory in combat requires teamwork. It's up to you as the group's behind-the-scenes general to make the most of each one's ability. For example, your Mage might cast a Katino spell on a crew of orcs and put them to sleep, enabling your Fighters to hack off their ugly little heads. Setting military-style objectives for each foray into the maze is also suggested, rather than just rambling around aimlessly until you're out of spells and surrounded by drooling Dragon Puppies. One mission might be aimed at mapping a particular part of the maze, another at rounding up enough gold to buy your chief Fighter a larger shield. You've

also got to make harsh decisions about your army. If that elf isn't working out as a Fighter, perhaps you should kick him out and draft another character from those stored on the disk. There's a managerial atmosphere to the game that's integral to the overall design, probably the reason *Wizardry* is as popular with lawyers, doctors, and other professionals as it is with teenagers.

In addition to organization and strategic skills, *Wizardry* also demands a solid foundation in map making. Unless each move is carefully drawn on a sheet of grid paper, you're bound to get hopelessly lost in the maze and never find the exit. If that happens, it's only a matter of time before the monsters finish off your entire party—a crushing and often traumatic experience, especially after you've spent weeks carefully developing a favorite character. (If you thought to save your characters to a backup disk, though, they can be resurrected with one of the program's utility options.) When at least one of the gang gets out alive, he or she can pay a stiff fee at the Temple of Cant and have dead comrades brought back to life. If one of the survivors is a powerful Priest, he can sometimes use his powers to restore a recently deceased character.

As you plunge deeper into the maze, the creatures' attacks intensify. Zombies, Vampires, Murphy's Ghosts, and swarms of increasingly more bizarre monsters pounce from the shadows. Some of these fiends can also cast spells, and death becomes a frequent companion on this quest for the amulet. There are certain areas where magic won't work, and you'll have to live or die by the sword. Then there are the spinners, rotating sections of floor that turn your party around when you step on them, making it extremely difficult to keep mapping your progress. For stalwart heros dedicated enough to spend several months trekking through the dungeons, however, hidden elevators and teleportation spells make it easier to move back and forth from the dungeon's deeper levels.

With electrifyingly fast-paced combat scenes, ten devilishly designed mazes to map, and an assortment of surprises, the *Wizardry* experience is so captivating that

you won't want to quit playing even after you've killed Werdna and scooped up the magic amulet. Apple owners won't have to quit, for the characters created and developed in *Proving Grounds* can be transferred to a pair of sequels, *Knight of Diamonds* and *Legacy of Llygamyn.* (You can't venture into these scenarios without first creating and developing strong warriors and wizards in *Proving Grounds.*) Both sequels will eventually be converted for the other computer systems.

Compatibility: Apple II, IBM PC, IBM PCjr, Macintosh, Mono-chrome Quadlink
Format: Disk
Manufacturer: Sir-Tech Software, Inc.

Exodus: Ultima III

If prowling around in shadowy mazes for months isn't your idea of fun, you may want to pass up *Wizardry* for the world of *Ultima III.* Staged in the mythical land of Sosaria, this story is presented in a wider variety of settings that are less claustrophobic than the dungeons below Trebor's castle. It has enough mazes to satisfy most hardcore maze lovers, but also offers side trips on which you can tramp across the countryside, venture into rural villages and towns, and even sail the ocean blue. While *Wizardry* plays like a computerized version of the board game Dungeons & Dragons, *Ultima III* is more reminiscent of J.R.R. Tolkien's trilogy of fantasy novels, *The Lord of the Rings.* The third (and best) game in the Ultima series, this scenario pits you against Exodus, a loathsome beast who is sending hordes of orcs, devils, and other cursed creatures to ravage the fair land of Sosaria.

Character creation and storage is similar to the process used in *Wizardry,* but *Ultima III* offers a greater assortment of classes from which to choose. In addition to Fighters, Clerics, Wizards, and Thieves, Sosarian society boasts Druids, Barbarians, Paladins, Larks, Illusionists, Alchemists, and Rangers. The local races are nearly identical to *Wizardry's*: humans, elves, dwarves, fuzzies, and

hobbits.) Each class has its own specialty. Some magic users cast healing spells, for example, while others excel at conjuring attack spells. After "rolling up" as many as 20 such characters and saving their names, attributes, and other statistics on disk, you can recruit any 4 and begin the search for Exodus. If these 4 don't work out, you can always disband the group and form a fresh party.

With eerie music accompanying your every move, the saga unfolds in four environments: on the surface of Sosaria, inside its castles and cities, within the mazes, and in the combat arena. The action starts on the surface, where the continents, islands, and oceans are depicted by a high-resolution planet map. You get a bird's-eye view of your party and the immediate vicinity. To give orders to your group, you rely on one-key commands such as G to get an object or C to cast a spell. Other keys control moving north, east, south, or west. Below the map, a command line displays messages, or prompts you to enter a command. If the group moves against the edge of the screen, the map scrolls to reveal the adjoining area. In this manner, it is possible to walk all the way around the globe. If you manage to commandeer a ship, you can circumnavigate the world—unless a pirate ship blasts you out of the water or a school of sea serpents devours your crew.

Your entire party isn't displayed on the surface or in the towns, however. A single figure is shown instead and represents the entire band. Only in the combat arena are all four characters depicted as individuals. The best bet is to avoid such confrontations until you've reached the nearest town and bought some weapons. (Unlike *Wizardry, Ultima III* doesn't permit you to go shopping prior to the expedition.) Scattered around the map, little images of castles and towns mark Sosaria's population centers. To enter a town, you move the party on top of its image and press the E key. After a few seconds, fresh graphics are loaded into the computer and the streets of the town replace the aerial view.

The first thing you'll notice is the new background music; each area has its own theme. By the way, sound effects and music can be switched off if your ears need a

break. All purchases are conducted via menus from which you pick and choose weapons, spells, and other gear. While browsing in the shops and stores, you'll frequently run across local citizens who prove quite talkative. If you type T (Transact) and indicate which party member will do the talking, you may get valuable messages and clues from the townfolk. A fighter in a pub, for example, hints that "Exodus lies beyond the silver snake." Of course, it's still up to you to find the silver snake. Swords, torches, spells, and other items can be purchased in many towns; don't forget to stock up on food while you're in the neighborhood. If your characters don't keep a solid supply of food on hand, they'll eventually starve. Each member's food supply, hit points, and other key statistics occupy the top section of the right-hand side of the screen. You can examine their complete stats and inventory at any time with a one-key command which brings up a scrolling message in the lower-right corner.

The surface of Sosaria is also strewn with images of mine shafts and caves. The interior of each holds a three-dimensional maze that looks a lot like those found in *Wizardry*. Fortunately, they're not hard to map: A certain magic spell displays a clear map of the current maze and your position in it, with all its doors, stairways, and unknown objects clearly marked. All you have to do is copy it down, a much faster and less tedious process than drawing a map one square at a time. The mazes may be as many as eight levels deep and must be thoroughly investigated, for gold, other necessary items, and information are hidden deep in their depths.

While creeping through a maze or crisscrossing the surface by land or sea, your group is always vulnerable to attack by the orcs, golems, zombies, fighters, giants, and other evils from fantasy land. It's in these encounters that your characters are shown as four different people, so they maneuver more effectively around the enemy creatures who are similarly animated in the combat arena. The arena is a plain area filling the screen, replacing the maze or terrain you were exploring. One by one, you select battle options for your party. Then the

flailing begins. If a spell has been cast, a sizzling ball of flame may zip across the screen and strike the nearest orc. Other animation, dramatic music, and crackling sound effects heighten the tension. Results of each attack are described in a brief text line below the arena. Combat is a do-or-die proposition, for you cannot leave the arena until your party or the enemy is completely exterminated. If your group is victorious, its characters receive experience points and the chance to open a yellow chest and search for booty. Like their counterparts in *Wizardry*, the chests are often booby-trapped and best left to characters with high agility ratings or a certain magic spell. Wounded or poisoned characters can be healed by Clerics. This is preferable to paying a healer back in one of the towns, who can even raise the dead for the right price.

Sosaria's most precious secrets are hidden in regions which remain inaccessible unless you master the machinations of the blue teleport doors that materialize intermittently. Other places can't be entered unless your party members bear the mark of the snake. And you must also find the elusive city of Dawn, which appears only at certain times. Only there can you purchase the exotic weapons required to defeat Sosaria's most formidable fiends. The changing phases of Sosaria's twin moons are displayed at the top of the screen and serve as a clock for perceptive players trying to figure out the puzzles of Dawn and the teleport doors. There are also magic words to be discovered and uttered in the appropriate places.

Ultima III has a sort of miniparser. If you press O for "other command," you can type in a word for a character to speak when transacting with castle guards or Lord British, who promotes your characters to higher levels when they have earned enough experience points.

Then you've got to track down the Time Lord for advice on how to deal with Exodus when you do find the Castle of Fire in which he dwells. Don't plan on doing so overnight, for this is a long-playing game that often requires months to complete. But as in any trip, getting there is half the fun.

Compatibility: Apple II, Atari, Commodore 64, IBM PC, IBM PC
AT, IBM PCjr, Macintosh
Format: Disk
Manufacturer: Origin Systems

Xyphus

One of the few unique role-playing games to surface amid a deluge of *Ultima* and *Wizardry* clones, *Xyphus* incorporates numerous features of computer war gaming into a swords and sorcery scenario set on a distant planet. The legend tells of a monstrously evil demon, Xyphus, who ruled the land until a powerful wizard ripped out his heart, a huge gem. He hid the gem deep underground, but goblins and demons grabbed up pieces which broke off during the battle. These amulets, called Xiphoids, are used to perform magic. Das the Conqueror (never seen in the actual game) and his armies have wiped out all the foul creatures except those on the Lost Continent of Arroya. That's a task which falls on your shoulders as the game commences.

Six different scenarios make up the game. You must complete each one's subgoal before loading the next scenario and finally tracking down Xyphus. In the first, you've got to equip your warriors and strengthen them in combat; another scenario requires that you find an enchanted goblet, the Lion of Saddhu. Kings and rulers at certain forts will ask you to perform a minimission, such as carrying a message to another post or slaying a particular goblin who is stirring up trouble. In the final scenario, you must confront and defeat the lord demon Xyphus, who apparently survived the wizard's radical form of open-heart surgery.

The members in a party of up to four Spellcasters and Fighters are displayed individually, as in *Ultima III*'s combat arena. The only drawback is that the characters are small and hard to differentiate, even on a hi-res monitor. The active character's name and stats are always displayed. With keyboard control, they can be marched in six directions instead of just four, and individuals can

even travel to widely separated places, depicted on a hi-res color map like those seen in war games. The map doesn't scroll as in *Ultima*. Instead, the map's next portion is instantly displayed if you try to move past the screen's edge. When one character has wandered off to some remote spot, the view shifts to show that character's current area when it's his or her turn to move. *Xyphus* also introduces elements of war gaming, such as different movement factors for dwarves, elves, and humans. Movement factors are affected by type of terrain, so dwarves move faster than humans while in the mountains. Little or no *Wizardry*-style mapping is necessary, for the only maze is in the last scenario. Another feature will whet the appetite of frustrated *Ultima* players: You don't have to buy food.

Your Spellcasters are useless until they find a Xiphoid, usually protected by some of the 60 creature types. Sandskimmers, Spider People, Ice Dragons, Ghouls—all lie hidden in specific areas and attack when you approach. Combat is conducted as in a war game, by attacking an enemy who is next to one of your party. Another plus: The attacking creature's hit points are flashed onscreen, so you know how much damage you've inflicted. Creatures don't act as predictably as those in *Ultima III*, which keeps things interesting. Strategy and tactics are vital, because the character who polishes off the monster gets the most experience points and gold. This—and the lack of a "join gold" feature—forces you to concentrate on developing each character as an individual. Spellcasters can choose from six combat and five hindrance spells. Spells and weapons are sold in the forts and outposts, where the shops are menu-driven. All characters' hit and endurance points are automatically restored upon entering.

Everything can be saved to the scenario disk at any time. Deaths are not immediately written to the scenario disk as they are in *Ultima* and *Wizardry*. If the party is completely wiped out, you don't have to reboot the program to restart at the last saved position. Also, each scenario loads fully into RAM, so there's never a wait for disk access. Each additional scenario is progressively more difficult—count on each lasting 3 to 12 hours. A

detailed manual describes each creature and relates the legend.

With so many unique features, *Xyphus* is a landmark program that sets new standards for role-playing games. Created by Robert Waller and Dave Albert, it's your passport to an engaging and provocative experience no serious adventurist should miss.

> *Compatibility:* Apple II, Commodore 64, IBM PC, IBM PCjr, Macintosh
> *Format:* Disk
> *Manufacturer:* Penguin Software

SunDog: Frozen Legacy

A remarkable player interface lifts this science fiction space-merchant saga into orbit with classics like *Wizardry.* Instead of using menus and one-key commands, *SunDog* features ZoomAction™ Windows, which materialize in the middle of the screen in various situations. Rectangular "buttons" indicate available options, which are executed by moving the cursor over one and jabbing the joystick button. In some windows, information and dialogue are displayed. In others, icons symbolizing various objects—food, handguns, spare parts for the ship—are manipulated via joystick much the same way parts are moved around in *Pinball Construction Set* or the way the Macintosh interface works. You never have to touch the keyboard. The result is a streamlined game that's a joy to play and almost impossible to switch off.

SunDog's plot is equally streamlined. You've inherited an uncle's cargo starship and a contract to deliver certain items to Banville, a new colony on the planet Jondd. The initial scene displays a diagram of the ship *SunDog* and a small dot representing you. A cursor rests in the center of the screen and is controlled with the joystick. To move your character to the cursor, you press one of the stick's buttons. When you stop at a room on the ship and release the button, a window pops up and shows the contents of places like the engine rooms, gun

bay, and cargo hold. The latter detaches and becomes a pod for traveling on land.

Steered in the same manner as your character is guided, the pod carries you from the spaceport into the streets of Jondd. Leave the city behind, and a scrolling map depicts an aerial view of the continent. After finally locating it, you'll pull into the warehouse at Banville, and see a scrolling message listing the items needed to complete Phase 1. This includes staples like grain and fruits and a couple of cryogens, the future inhabitants of the colony. These people are currently stored in suspended animation in warehouses across the galaxy.

You begin with around 30,000 credits. By shuttling back and forth between the five cities on this planet, you'll spend lots of time buying droids, biochips, clothes, or other goods and selling them—you hope—for a profit in another town. There are hotels, bars, and different kinds of stores to investigate. Buildings are shape- and color-coded, so little mapping is needed. Instead, you'll want to record the prices and availability of goods in different places.

Shrewd trading is central to success. Everything Banville needs for the first phase can be located on Jondd, and a dozen or so new buildings materialize as soon as you make the last delivery in each phase. As you progress through nine subsequent stages, it becomes necessary to range deeper into space for the more exotic goods such as sunsuns, comgear, and nullgravs. Teleportation centers will zap you—but not the pod—directly to any city or planet to check out their goods and prices.

There are a total of 18 planets and 50 cities, so you'll have to master the *SunDog's* controls and find out where to buy more powerful lasers and other equipment. Flying the ship is easy—it's outmaneuvering and outshooting the pirates who attack you in deep space that provide the supreme challenge. The view here switches to a first-person perspective looking out at the stars and the enemy. There are also brief combat phases in the cities, where you can chat with some characters who occasionally offer clues on where to go for the best deals.

You can buy bottles of medicine to temporarily boost

your character's attributes. The only exasperating aspect of the game is its insistence that you get enough sleep. If your rest factor reaches zero, you pass out and the Status window appears until you've rested enough. This usually happens on long-distance overland trips—resourceful space merchants will soon find a way to fly city-to-city and avoid these pauses. You may also call up the Status window to check your cash, location, and other conditions, or to save the game in progress. This is accomplished by placing the cursor over the appropriate icon and pressing a joystick button. A similar method is used to move icons around to install new parts in the *SunDog*, which breaks down almost as often as Hans Solo's *Millennium Falcon*. When necessary, you can step through a series of windows by pressing the button.

Another convenient feature is that you don't have to create a scenario disk. The game has a set of utilities on one side which keep your saved games and enable you to quickly generate new characters. It also offers the option of automatically restarting the last saved game, so you can jump right back into the action. Disk access is fast, and sound effects serve practical purposes. (Programmers might be interested to know that it was written in Pascal.) A well-balanced game offering a wide variety of activities, *SunDog* provides months of riveting entertainment. After a few hours inside this universe, you may not want to return to planet Earth.

Compatibility: Apple (64K)
Format: Disk
Manufacturer: FTL Games

Timeship: Murder at the End of Time

Timeship successfully combines a role-playing game system with a parser-based graphic adventure. This combination allows you to develop characters which can be used in a running series of adventures. You can create and store up to ten characters on a separate disk.

The game begins inside the Time Travelers' Guild Hall, which consists of several domes. Characters are created and examined in the Archive Dome, where you may also request a hardcopy of all vital statistics. From menus in the Trade area, you can visit the Equipment, Weapons, Armor, and Bank Domes. One-key commands are used to buy and sell weapons and equipment or to check inventory. Weapons range from medieval maces and morning stars to laser pistols, but you'll find no magic spells in this arsenal. All items are listed in the thorough 24-page manual.

After organizing a party of up to four explorers, you enter the Ritual Dome for a trip through time. A Time Capsule, a program used in conjunction with the system, is necessary. Included with *Timeship* is the Capsule *Murder at the End of Time.*

The Mission Summary sheet explains that you must travel into the future to solve the first murder in 300 million years. When you arrive, the screen shows an illustration in the top half and an eight-line text area below.

The first character you'll meet is Bertram Trenchcoat, appointed by the Superiors (the rulers of the future) to assist on the case. He tags along as you amble through clouds of gray mist. Before long, you'll discover Count Dracula stretched out in a coffin, a stake through his heart. Dracula isn't the game's only monster-movie character, for you'll find hunchbacked Igorr guarding an alien spaceship. You'll also have to deal with force fields and other science fiction devices to solve this case, which is definitely not an Infocom-style mystery. The victim returns from the dead, for one thing, and there's something very odd, almost surreal, about the landscape. Ultimately, you must figure out what's happening before you can solve the crime.

C lues are found in the text, not the pictures. Some objects can be bought in the Trade Dome. Once you know what's needed, it's certainly easier to buy that piece of rope or that oilcan than it is to trek all over the place looking for it. Mapping is hampered by the mist, which confuses your sense of direction. You might type N, but wind up going east.

A full-sentence parser smoothes communication with the program. There are two types of commands: group and character. The former includes directional movement, "attack," and "look." Character commands let you control a specific individual, having him or her examine or get an object, check inventory, ready a weapon, or talk to someone. You can pose questions with the words *who, what, where, when,* or *why.* Play proceeds as in a standard graphic adventure until you bump into a pack of vicious, bug-eyed mist dwellers.

The combat phase best resembles *Wizardry.* A small block in the upper-left corner depicts the enemy, while the remainder of the top of the screen is reserved for ememy information. A text area for choosing combat options which relate to the type of weapon carried by your party appears below. Each character's action is selected sequentially; then combat results are shown. With assorted beeps and other sound effects for each assault, combat continues until one side has been vanquished.

Instead of hit points, your characters possess two basic types of energy: Personal and Reserve. (A third, Permanent Energy, is awarded for completing a Time Capsule.) The amount of Personal Energy depends on which items a character carries on the expedition. It may be replenished by eating, sleeping, or dropping objects purchased from the Trade Dome. Several points of Reserve Energy are consumed when the character is wounded. After this Reserve Energy is depleted, further wounds reduce the character's Personal Energy. Characters die when their Personal Energy is exhausted. They always return to the Guild Hall to sleep or go shopping before heading back into the future, where each starts with a fresh supply of Personal and Reserve Energy. You can save only one game in progress.
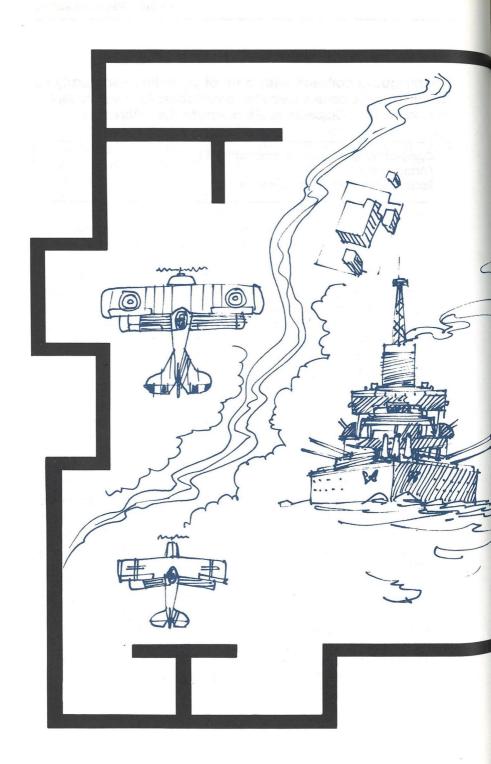
Overall, the role-playing side of the system lacks the depth of a *Wizardry* or *Ultima,* but neither of those games enables you to use your characters in an adventure, let alone one as challenging as this. The *Timeship* system is
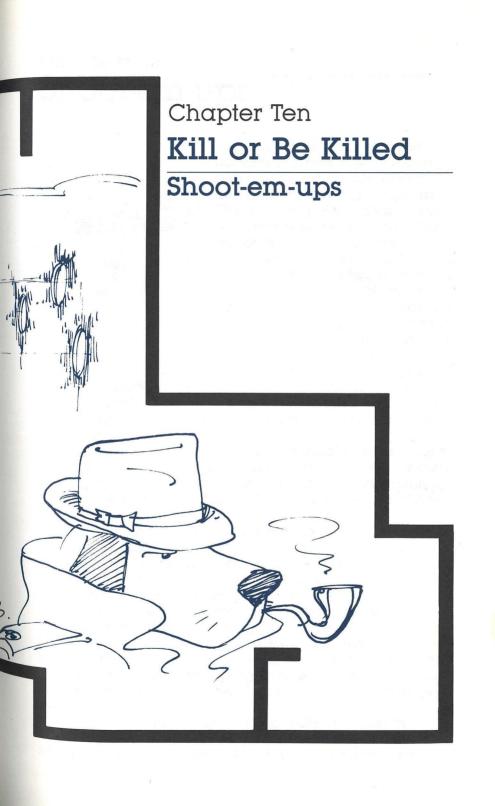
an intriguing concept with a lot of potential, especially as more Time Capsules become available. At the moment, the only other Capsule is *Assassinate the Führer.*

Compatibility: Apple II, Commodore 64
Format: Disk
Manufacturer: Five Star Software

Chapter Ten
Kill or Be Killed
Shoot-em-ups
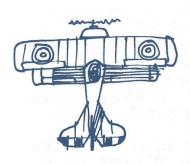
Shoot-em-ups

As soon as the first computer hackers learned how to move objects around on the screen, they began blowing things up. The first computer game, *Spacewar*, was created by Steve Russell on a PDP-1 mainframe computer at MIT in 1962. It was a simple game with two spaceships on the screen, firing blasts of light at each other. That was ten years before *Pong*. An arcade-game version of *Spacewar*—*Computer Space*—was produced in 1971, but it was a flop. While hackers and engineering students liked it, it was incomprehensible to people who had never manipulated objects on a screen. *Pong* taught people that skill, and in 1978, *Space Invaders* made shooting aliens a national obsession.

Shooting games are usually the simplest type. There are, after all, only so many ways to kill an alien. As computer games, and players, have become more sophisticated, other types of games have surpassed shooting games in popularity.

But shooting games have become more sophisticated, too, as demonstrated by some of the amazing selections in this chapter. While they're not as popular as they were a few years ago, there's always room for a hot new space contest in most game libraries.

For some reason, a great many shoot-em-ups take place in outer space. Actually, there are several reasons. For one thing, computer hobbyists and game designers seem to be big fans of science fiction. For another, space games are the easiest to program—even before you turn on the computer, the screen has the dark appearance of space.

Whatever the setting, nothing quite matches the experience of firing a barrage of thermonuclear heat-seeking missiles into the belly of an evil enemy fortress

and watching it disintegrate in a blazing shower of junk. Shoot-em-ups are macho. They're the only way to kill things without hurting a fly.

Blue Max

L ast year, a game came along that just about made standard two-dimensional hand-eye coordination games obsolete. *Blue Max*, created by Bob Polin, may be the best action game in existence. It received *Computer Games Magazine*'s Golden Floppy Award in 1984 for Game of the Year.

The game may remind you of *Zaxxon*. Both feature a diagonally scrolling, three-dimensional screen and an aircraft shooting at targets in the air and on the ground. In *Blue Max*, however, you're flying a 1915 British biplane over a landscape of bridges, roads, tanks, and buildings. *Blue Max* refers to the medal that Germany offered to any of its pilots who could down British ace Max Chatsworth during World War I. Chatsworth downed 20 German planes in two months during 1915.

But *Blue Max* is even better than *Zaxxon*. The control of the plane is so smooth that you may be tempted to sway your body as you bank left or right. *Zaxxon*'s big problem—determining your altitude—is no difficulty here. The backgrounds and shadow of your plane on the ground make it clear how high you're flying. You've also got a handy altimeter gauge. What *Zaxxon* pioneered, *Blue Max* perfected.

Blue Max does something no other shooting game has done before. You don't just fire away until your thumb falls off. The bridges, tanks, and enemy planes must be destroyed differently. You'll need your instrument panel, which indicates fuel, bombs, speed, altitude, wind, damage, and approaching enemy aircraft. People who look down on simple-minded shooting games may appreciate the complexity of *Blue Max*.

But it's not so complicated that it overwhelms. *Defender* is a great shooting game, but there's so much happening at once that many people don't enjoy it. Unlike *Defender*, *Blue Max* is mainly an offensive game. You don't have to constantly be on guard for the next attack.

You can fly around and enjoy the scenery—bomb a few bridges here, strafe a few tanks there. Have some fun.

Dropping bombs takes some getting used to. You have to hit the fire button and pull down on the stick at the same time. Since pulling down on the stick also makes your plane dive, you've got to be careful not to smash into the target. It's also important to learn how to "lead" as you drop bombs. In other words, you need to release them *before* you reach your target, just as a football quarterback throws his passes slightly in front of his receiver. There's a feeling of exhilaration when you first master pinpoint bombing.

The toughest part about *Blue Max* is landing your biplane to refuel and make repairs. A tone sounds, indicating that a runway is coming up. If you don't land on it, you'll usually run out of fuel before you reach another. When a blue *L* lights up on the control panel, you bring 'er down, center the aircraft over the runway, and land. If you miss the first half of the runway, you're dead— you'll need a lot of room to build up the necessary take-off speed. Don't let the simple explanation of landing make you think it's a piece of cake. Wait until you crash and burn a few times before you form your opinion.

You just can't beat the graphic detail of *Blue Max*. When you blow up a bridge in Activision's *River Raid*, for example, the entire bridge just disappears. But in *Blue Max*, a bomb takes out a chunk of the bridge— just the area that you hit. The graphics are crisp and colorful. Little cars and trucks drive over the bridges, and the screen lights up with explosions when you strafe a field of tanks. Tiny soldiers running around would have been nice, but you can't have everything.

Blue Max's soundtrack consists mainly of bombs dropping and exploding, but even here attention has been paid to details. When a bomb hits the ground, it blows up, but when it falls in the river it makes a splashing noise. Topnotch players can enter an enemy city after destroying enough enemy armament. A jaunty chorus of "Hail Britannia" serenades you between games.

However, there's so much in *Blue Max* already that it's not fair to complain about what's missing. *Blue Max* is a thinking person's shooting game, and it's one of the best around.

Compatibility: Atari, Commodore 64
Format: Disk
Manufacturer: Synapse Software

Demon Attack

The perfectly arranged rows and columns of aliens in *Space Invaders* made people wonder, "Why can't the aliens move?" If these creatures are supposed to have superhuman intelligence, you would think they'd know enough not to just sit there and get picked off by some primitive Earther laser cannon. It wasn't long before the arcades were flooded with swooping, sailing, dive-bombing invaders that blew *Space Invaders* back into the *Pong* Age. The first home game version on this theme—*Demon Attack*—is still one of the best.

Created by Rob Fulop, *Demon Attack* is one of the first shooting games that changes as you advance through its levels. Most games of this type simply get faster with each level and quickly become boring. You see everything there is to see on the first screen. In *Demon Attack,* the aliens assume a different form on each level. On level 1, they drop their regular bombs. On level 2, the bombs fall in two long, straight lines. On level 3, the aliens split in half when you hit them, and one of them continues bombing while the other tries to commit suicide in kamikaze fashion. There are more than 80 levels altogether, each of them slightly different. Games like this offer a challenge more intriguing than hitting the high score. You play if for no other reason than to see what obstacles lie ahead.

This game is like a bad case of Hitchcock's *The Birds.* The multicolored demons are formed when both halves zip in from the sides of the screen and fuse. Immediately, they begin flapping their wings and dropping anywhere from two to five bomb payloads over you. You can move

only left or right, as in *Space Invaders*, and if you get hit, your cannon explodes in a shower of yellow sparks. As many as six birds may be on the screen at once, dancing and flapping realistically. They're programmed to follow you around, and you play a game of cat and mouse—sneak under them to get off a shot or two, then scoot away. Run and gun.

When all the aliens have been destroyed by your laser cannon, it's on to the next wave. Be grateful that the designers award a reserve cannon every time you complete a wave, and when a game is over you can start the next one at the level you left off. *Demon Attack's* graphics are a sight to behold, especially in the PCjr version. The night is filled with stars and your planet is a beauty. Unfortunately, the huge planet is more of a hindrance than anything else, since it's hard to see the demons when they fly in front of it. This is one game in which the simple Atari VCS version is actually more playable than the fancy translations with wallpaper graphics. All versions are fun, though.

When you get past the third level, you'll be astounded by an outrageous-looking mother ship that fills the screen and spits demons out its mouth. The mouth even opens and closes. Knock it out and the screen explodes with color. That's the biggest reward in the game.

The appeal of *Demon Attack* lies in its perfect balance of rewards and punishments. The birds aren't that hard to hit, and the first few levels are fairly easy to survive. Then it gets very tough and you feel like you've maxed out. Just as you start getting frustrated, you get to see that big mother ship and the struggle becomes worthwhile again. Who knows what kind of weird thing could show up next? The game tantalizes you with the smell of victory; then it destroys you. If you love to shoot things but you're not ready for the intensity of *Robotron*, *Demon Attack* is your game.

Compatibility: Atari computers, Atari VCS, Commodore 64, Commodore VIC-20, IBM PCjr, Intellivision, TRS-80 Color Computer
Format: Cartridge, Disk (64)
Manufacturer: Imagic

Turmoil

When you think of a nation of teenage zombies killing hordes of aliens or of masses of youngsters wasting their lives playing mindless computer games, *Turmoil* immediately comes to mind. The game has absolutely *no socially redeeming value.* It also has no depth, requires no complicated strategies, and doesn't even have the standard defend-your-civilization plot line to justify its violence. It doesn't try to be anything more than what it is—the fastest-moving game in the world.

The screen consists of seven horizontal lanes with one vertical tunnel in the middle. Your ship moves in the middle lane, while enemy ships shoot out the sides of the screen along the seven lanes. You've got to shoot—which scores points—or move your ship up and down to get out the way.

There's a little more to it than that. Five types of enemies are attacking you, and they move at different speeds and behave differently. If you don't shoot the arrows which come out, they turn into tanks on their return trip. When you shoot a tank head-on, it doesn't die; it just backs up slightly. To kill it, you have to wait until it passes you and shoot it from the rear. More points are awarded for killing the aliens that move the fastest.

There's also a doughnut-shaped prize that appears in the middle of a lane from time to time. You don't shoot it, but instead should rush down that lane and touch it with your ship. These prizes are worth 800 points, far more than anything else, so going after them is worth the risk. Besides, if you don't grab the doughnut, it quickly mutates into a tiny dot that bounces back and forth across the screen like *Pong* on amphetamines—very tough to hit. And even after you get the doughnut, you're in trouble. A ghost ship shows up in the same lane if you don't get out fast enough, and your bullets just go through it.

Turmoil won't let you have a leisurely conversation while you play. If you glance away from the screen, even to scratch your nose or check your score, you might as well kiss that ship goodbye. You've got to somehow disconnect your brain synapses and concentrate only on the tunnel in the middle of the screen. The sole break is

between waves, when you can take a deep breath, wipe your sweaty joystick palm on your pants, and get ready for the next onslaught. There are nine increasingly tough levels, and you can start the game at any of them. Just so you don't get too cocky, the lanes occasionally become invisible after level 4.

In a lot of run-and-gun games, you punch off a few shots and then have to wait until they clear the screen before you can fire again. But in *Turmoil,* you just keep your thumb on the fire button continuously—the shots spray out one after another. It's a great feeling of power. The game sounds like a World War II movie with the addition of electronic rapid-fire explosions.

As far as the action goes, the game is a real joystick buster. You're jamming the stick left and right very quickly to keep the aliens off your back. The game requires very fast hands, and at the same time, a soft touch to make fine evasive movements. Beginning players find themselves moving and shooting wildly at everything in sight. As they become more familiar with the individual enemies, they learn to slow down a little and pick them off more carefully.

Named for its designer, Mark Turmell, *Turmoil* is a simple, basic, but relentless, challenge that's fun to turn to when you need a break from the more intellectually taxing games. It is the *Frogger* of shoot-em-ups.

Compatibility: Atari, Commodore 64, Commodore VIC-20
Format: Cartridge (Atari, VIC), Disk (64)
Manufacturer: Sirius Software

Repton

S pace jockey needed: Must be able to handle a Repton Armageddon fighter, one of the most maneuverable, responsive, and deadly spaceships ever to zip across the horizontally scrolling screen of a shoot-em-up. It can instantly reverse direction with the flip of a joystick, accelerate, and stop with equal speed, and it has an impregnable force field that's automatically activated

when you release the stick. The Repton fighter packs a laser gun that rapid-fires huge space torpedoes almost as long as the ship itself. Five nuclear bombs are on board, detonated individually by hitting the space bar and pushing the joystick in any direction.

W hen the Code Crimson alert comes in, you're the only fighter left on Repton, a colony on a distant planet under attack by Quarrior saucers and hordes of other alien ships. The main objective is to prevent the saucers from constructing a base. They carry one brick at a time to the site and stack them up. Rockets erupt from the building each time you pass near and increase in numbers and frequency as the building grows larger. Against a backdrop of stars twinkling in an array of colors, you'll see smaller Spye ships that get in your flight path as you race in either direction over the buildings on the surface of the planet. The screen scrolls horizontally in each direction, and you can wrap around to the left side by flying off the right. A radar screen at the bottom, much like the one in *Defender,* displays the location of enemy ships and key locations on the surface.

On each new level, the Quarriors and Spyes are joined by a growing variety of menaces: Minelayers, which strew the atmosphere with little spinning exposive rods; Dynes, which emit highly destructive energy beams that stretch across the screen; Nova Cruisers, big mother ships containing four small saucers that are the hardest to hit; and the Draynes. Draynes are appropriately named, because they hover over a spot and drain energy up from the surface. A parallel bar above the radar screen shows the amount of energy remaining on the planet. If you can fly through the energy beam as it's being sucked up by the Drayne, your ship intercepts the stolen energy. Dock or fly through a station on the surface, and that energy's restored.

Everything gets hectic after the first few levels. For one thing, you'll face several waves of Quarrior ships on each level. And if you don't clear a level of all the ships before the time limit, a swarm of smart bombs appears

and inevitably blasts your ship. The saucers, Novas, and single ships all fire little starlike shells at you, which pop and crack like Chinese firecrackers.

When the screen gets crowded with a dozen or more enemy ships, you can lean on the fire button while climbing and descending rapidly to produce diagonal lines of withering torpedo fire. It's like mowing down aliens in space. Flying this Repton fighter's a real thrill in itself. After you've learned to keep an eye on the radar screen and glimpse up at the screen every tenth of a second or so, some unreal aerobatics become possible. Skimming the surface at top speed, you can slam on the brakes, back up, and pivot around to blast a hovering Dyne, then scream halfway across the planet and nuke three Novas simultaneously. The planet flashes brilliantly when those nukes go off, and the sound effects are convincing.

If the planet's energy is totally drained by the Draynes, a fail-safe interlock detonates an Armageddon bomb which disintegrates everything on the surface. Your ship descends into an underground tunnel. Enemy rockets fire from the floor, and bombs drift up to seek out your hull as you attempt to traverse the lengthy tunnel and destroy the alien's main generator. Occasionally, little blue saucers descend from among the stalactites to take potshots at you. More precise navigation is required here, because your energy shield's out of commission and the merest bump wipes you out. At least you get five ships, and a new one (plus another nuke bomb) for each 5000 points.

When that compulsion to rev up the rockets and waste a skyful of aliens creeps over you, *Repton's* complex scenario, fast action, crisp animation, and well-rounded variety of alien ships make it one of the most satisfying shoot-em-ups around.

Compatibility: Apple II, Atari, Commodore 64
Format: Disk
Manufacturer: Sirius Software

Zaxxon

When *Zaxxon* hit the arcades in 1982, it rocked a lot of people back from the controls. It wasn't because the game was so challenging or exciting, but because it was just beautiful to look at. *Zaxxon* was the first game to offer realistic three-dimensionality. You view the scene from an overhead, diagonal perspective as it scrolls by. This had never been done before, and that effect made *Zaxxon* an important evolutionary advance. Like *Pong, Space Invaders, Pac-Man,* and *Dragon's Lair,* people crowded around just to look.

The game itself isn't half bad, either. The opening view of an asteroid is so large that only a small portion of it fits on the screen at once. This bright blue Asteroid City happens to be armed to the teeth with missiles that shoot from the ground without warning, gun turrets, parked enemy planes, homing missiles, radar towers, brick barriers of varying heights, and electric energy fields. You've got to maneuver a small spaceship through all those obstacles, and your only weapon is a front-mounted gun.

If you make it over the last wall on the asteroid, you're treated to a deep-space dogfight with dozens of ships like yours that swoop and dive toward you, firing all the time. The number of ships you battle is related to the previous action on the asteroid. The more you destroyed on the ground, the less you have to take on in space.

Still alive? Next, you reach another asteroid, the home of *Zaxxon,* a huge robot that looks something like a jukebox with legs. *Zaxxon*'s home base is even more heavily fortified than the first asteroid, with more energy fields and smaller openings in the barriers to fly through. *Zaxxon* sits at the end and waits for you. The only way to eliminate him is to punch off six quick shots into his missile launcher before he can deliver one of his killer missiles. If you're successful, it's back to the first asteroid again. Now it gets tough.

Because of the three-dimensional perspective, controlling your ship in *Zaxxon* is more dificult than in a game where you have to worry only about left/right or up/down movement. Many players find judging height to

be confusing even though there are three methods to estimate it:

• Watch the altimeter gauge on the left of the screen.
• Your ships cast a shadow on the floor that gets larger and smaller, depending on whether it's flying low or high.
• Your shots hit the barriers at the same altitude as your ship is flying.

Experienced pilots get the hang of it quickly, though. A push of the joystick makes your ship dive; pulling back makes it climb.

None of the computer game versions of *Zaxxon* quite match the graphics of the arcade game, but that may be only because we don't have expensive arcade monitors in our homes. Asteroid City is an incredibly detailed work of art that looks like a real city, not the usual videogame desert horizon. You can move your ship faster from side to side in the home game, but the arcade game makes it easier to judge altitude and get through energy fields. The home game lacks the eerie space wind sounds of the arcade. It's hard to say which is more difficult to play.

Like most good games, *Zaxxon* gives you the freedom to try out various strategies. You can strafe the surface of the asteroid and wipe out lots of enemies or play it safe and fly high. Even with this strategy, you have to come down eventually or you'll run out of fuel. The supply is replenished, strangely, by blowing up fuel tanks on the surface of the asteroid.

Zaxxon isn't the best shooting game in the history of computer games, but it may be the best-looking. It's certainly one of the best-selling. Every time the game has been released for a different system, owners have rushed out to buy it.

Compatibility: Apple II, Atari, Coleco Adam, ColecoVision, Commodore 64
Format: Cartridge, Cassette (64), Disk (64)
Manufacturer: Coleco Industries, Inc. (Adam, ColecoVision); Datasoft, Inc. (Apple, Atari); Synapse Software (64)

Astro Chase

The first thing you notice about *Astro Chase* is the planet Earth dangling in the starry sky. North and South America are clearly outlined—there's no doubt you'll be defending your homeland. Dozens of other planets fill the sky. Color and shading are used to make them appear rounded, and many have rings around them, like Saturn. The graphics rival the beauty of *Zaxxon*. Unlike *Zaxxon*, all this scenery is part of the game. You can bounce off planets, they'll get in your way, and you can hide behind them.

You pilot a pretty standard-issue spaceship, but the controls are unorthodox. Your ship stays in the exact center of the screen at all times. When you move the joystick in one direction, the entire universe scrolls smoothly in the opposite direction—a tremendous feeling. Like clouds moving in front of a full moon, this creates the illusion that your ship is moving. Only one-tenth of the galaxy fits on the screen at once.

Pushing the fire button repeatedly does not cause repeat fire. Using Single Thrust Propulsion (a system trademarked by First Star Software), the fire button serves only to engage your ship for firing. Once engaged, moving the joystick in any of eight directions fires shots in that direction. So before the fire button is touched, the joystick controls the ship; after the fire button is down, the joystick controls the guns. This takes some time to master, but gives the game a unique feel and makes it stand out from the hundreds of other shoot-em-ups. Also, it allows you to shoot in the opposite direction from the way you're moving.

You've got an enemy to contend with—the Megard Empire. It's planted 16 mega mines in orbit around Earth. If any of them touch our world, the whole place blows up in a spectacular explosion that's so bright and colorful, you almost want it to happen. When Earth is destroyed, the blinding light radiates off every planet in the galaxy.

Of course, you can shoot the mines out of the sky, but they're small and inching closer to Earth every second. If that weren't enough, there are eight types of Megardian fighters flying around and harassing you.

Some will fire at you, some will ram you, and some can even fly right through planets. All of them wipe out your ship on impact. Just to make things interesting, you've got a limited energy supply. When it gets low, you must scoot out to one of the corners of the galaxy to gas up. The temptation is to fly around space hunting Megardian ships, but it's more important to patrol Earth and defend it from mega mines. There are 34 progressively more difficult waves. You can try any of the first 24 at the push of a button. The remaining waves are reserved for those players skillful enough to reach them on their own.

The game itself is great, but it's the graphics that really shine. *Astro Chase* begins with an incredible animated sequence of a spaceman (you) walking across a city street, saluting, and getting beamed aboard his ship. If you get far enough in the game, you'll see intermissions between waves that are variations on this animation. In one, a limousine pulls up and the spaceman gets in. In another, he waves to a crowd of people. There are eight intermissions altogether. *Astro Chase* also features an energetic rendition of Tchaikovsky's *1812 Overture,* which plays throughout the game, but you can turn it off if you get sick of it. This game, designed over three years ago by Fernando Herrera, is still one of the best-looking and best-playing shoot-em-ups around.

Compatibility: Atari computers, Atari 5200, Commodore 64
Format: Cartridge (all), Disk (Atari, 64)
Manufacturer: First Star Software, Inc. (disk); Parker Brothers (cartridge)

Beach-Head

For sheer good looks and power-packed action, *Beach-Head*'s hard to beat. The lush colors and hi-res detail of the six combat phases are artistic and finely animated, with excellent use of the Commodore 64's sprite capabilities for three-dimensional effects. Each phase of a sea assault on a land-based enemy fortress must be completed in succession, beginning with an aerial view of your force just outside the entrance to the palm-lined

bay. Inland, the fortress of Kuhn-Lin sits atop a hill. Strategy comes into play here: Do you sail straight into the bay, where the enemy's fleet awaits, or take him by surprise by attempting to cross the secret entrance to the north?

Go for the latter, and the scene cuts to a Goodyear blimplike view of an orange-cliffed lake littered with mines. You've got to steer each of your ten ships, one at a time, to the passageway on the far side. As obstacles, torpedoes skim through at various angles. Only if you're good at this maze-type screen will you push through enough ships to make taking the enemy by surprise worth the losses. Either way, you next face a scene right out of a John Wayne film. From an aircraft carrier on the horizon, enemy planes are taking off and heading straight for your fleet.

This first-person view of the air-to-sea engagement lets you look over the twin barrels of your antiaircraft guns. Joystick control allows you to move the guns horizontally and vertically with excellent maneuverability. You'll need it, because the enemy planes zoom in, spitting machine-gun bullets, knocking out your ships if you don't shoot them down fast enough. The prop-driven planes get larger and more detailed as they approach, and their engines roar authentically as they swerve off at the last second. There's also a red surveillance plane that's worth 1000 points. When you hit a plane, it bursts into a reddish orange explosion. It's more like comic book art than the typical laser-fire effects.

K nock out enough planes, and you have to deal with the destroyer, cruiser, and three other ships that start firing at you in a naval encounter. The sounds of shells whistling through the air and splashing into the water beside your ship are unerringly accurate. Your shells don't fly directly at the targets as they do in most games, but sail up and then arc down as in real combat. To aim accurately, you fire a shot, then check the range finder. It tells how long or short the shell fell. To elevate the guns one degree, you move the stick forward twice. You can't

fire a second shot until the first one lands, so the ability to rapidly calculate the gun's angle for the next shot is more important than hand-eye coordination. (This is the only shoot-em-up where you'll need a hand-held calculator. The pause feature is handy, too.) Speed's vital, because the enemy ships are firing nonstop while you're busy subtracting 65.5 from 78.0. Destroy the entire fleet to advance to the amphibious assault on the beach-head itself.

Now you've got a horizontally scrolling game. Your ten tanks move due west as the screen uncovers a beach strewn with walls, mines, and gun emplacements. The fortress lies at the far left, and it's impossible to turn back once you've set a tank in motion. After one tank makes it across, more guns appear for the next. Beyond this beach, the fortress waits atop a muddy brown hill. Again with first-person perspective, you see the big yellow cannon training directly on your tank—it never misses. The only way to destroy the fort is to shoot out a white window, which turns black as another blinks white. You've got to shoot out all ten windows. Although the range finder is available, you have to shoot from the hip. There's no time to do any calculating with that big cannon zeroing in on you. There's no way for a single tank to get all ten windows, so you've got to get at least three inside to blast the fortress. When that happens, you can watch its top fly off and a white flag of surrender wave from the hill.

There are four difficulty settings for one- and two-player versions, and high scores can be saved to the game disk. With superb sound effects, the variety of action, and its stunning first-person perspective, *Beach-Head* should be part of every dedicated fan's shoot-em-up arsenal.

Compatibility: Atari, Commodore 64
Format: Cassette (64), Disk (Atari, 64)
Manufacturer: Access Software, Inc.

Minit Man

M *init Man* is a winner because it encompasses a variety of tasks—as you fly your transport helicopter back and forth over a brilliant landscape stretching across three screens, you've got three different missions to accomplish. Shooting enemy robots is only half the battle. The overall objective is to fire three Minute Man missiles and knock out incoming rockets from an unknown enemy. The missiles are loaded one at a time onto a train on the west side of an unfinished bridge, but they can't be delivered to the underground silos on the second screen until you've rebuilt the bridge. (The screens don't scroll horizontally; instead, screens are replaced.)

Using the joystick, fly the chopper due east to the third screen for the bridge girders. Three stacks await, made up of two girder types: upside-down V-shaped pieces that must be placed side by side on the bridge bed, and straight girders to lay across them. Hover directly over a stack, and a little electromagnetic hook descends. A beep sounds as the hook latches onto a steel beam. The only danger on this screen is a radar tower that continually spits out a horizontal line of fire from the right side of the stacks. Precise timing is required to get safely to the girders, and to get out with them.

Buzz back to the second screen, over the tall building, drop down over the bridge on the first screen, and press the right combination of buttons to lock the girder into place. Make sure it's perfectly aligned, or be prepared to watch the girder sail into the canyon below. Laser bursts from an emplacement on one side of the canyon form an intermittent line of fire which must be ducked to reach the bridge. To make things even tougher, the rate of fire varies.

At least the helicopter handles smoothly. It spins around in midair to reverse direction, maintaining an accurate perspective as it turns. Maneuverability is most important on the second screen, when the robots enter the picture. As you're buzzing by with a girder, the first one descends and blasts a few shots at you. You can either try to avoid it, though the robots can easily outfly your chopper, or knock it out with your front-mounted

guns. If you don't get rid of it, the robot lands on the roof and starts a long trek through the building's seven floors to the computer. When hit, a robot mutates into another form—each must be shot *three times* to be put out of action. Even then, they drop deadly mines in the halls. To make it even more complex, some of the robots decide to head for the bridge instead of the building. It always seems that, just when you're doing well, a robot flies to the second screen and pulls apart a section of your bridge.

Finish the bridge, and a little train chugs across, hauling a missile to the silos on the second screen. To launch the missile, you have to land on the helicopter on the building's roof. A tiny, animated pilot leaps out. He's got to run downstairs to the computer to fire the rocket. Before entering the building, though, try to blast as many 'bots as possible through the slits in the structure's left side. Otherwise, your pilot will have to contend with them himself.

The world ends—with a computerized bang and special visuals—if the robots reach the launch computer, if you run out of helicopters, or if the five-minute time limit expires (a digital display ticks away throughout the game). It's a demanding challenge to dodge lasers and build a bridge on the first screen while keeping an eye on the robots' progress through the building on the second screen. Varying numbers of points are awarded for destroying the robots in their different forms, for each girder successfully attached to the bridge, and for launching a missile. Launch all three, and you advance to higher levels where robots attack faster and more frequently. The time limit is also reduced. You get five choppers and can restart the game from any point by pressing Control-R.

Its varied elements and highly maneuverable helicopter make *Minit Man* a well-balanced shoot-em-up that will have you hovering over your computer for hours.

Compatibility: Apple II, Commodore 64
Format: Disk
Manufacturer: Penguin Software

Dimension X

Sometimes an interesting new game can be created by combining basic ideas from two older games. *Congo Bongo*, for instance, is a combination of *Zaxxon* and *Donkey Kong*, as strange as that might sound. It borrowed the climb-up-and-get-the-ape theme of *Donkey Kong* and added the spectacular three-dimensional perspective of *Zaxxon*. *Dimension X* borrows elements from two Atari arcade games, *Battlezone* and *Star Wars*. Though it doesn't measure up to either arcade game, *Dimension X* is better than the home computer versions of both.

The game starts with a *Battlezone*-like segment on the desert of Jaraloba. You get a first-person view out the window of your ship, with mountains in the distance and clouds in the sky. But instead of moving over a barren vector-graphic landscape, as in *Battlezone*, this desert floor is a huge checkerboard, much like the landscape in Lucasfilm's phenomenal *Ballblazer (Dimension X* came out first, if you keep track of these things). As you move the joystick forward or backward, the checkerboard surface of the planet whizzes by. If you pull left or right at the same time, you create a gorgeous, hypnotic, swirling op-art effect that amazes onlookers.

But the dazzling display won't save your life. Rigillians, tank-shaped enemies, also patrol the area, and they fire rockets when you get within range. You can fire back with rockets of your own, which alternately shoot out the left and right sides of your vehicle. You can bob and weave to avoid enemy fire as it unpredictably curves left and right. The Rigillians get larger as they approach you. When you destroy one, the checkerboard turns a brilliant plaid for a moment. After you wipe them all out (there are usually four or so), that sector is considered secure. There are 25 such sectors to explore in the desert of Jaraloba. Some contain Rigillians, some are empty, some are neutral, some are unexplored. One of the sectors is for fuel and repairs and another is your capital city, which must be guarded at all costs. All these sectors are indicated by a map on the control panel at the top of the screen. You can travel across this artificial planet from sector to sector, as each is connected to eight

others by passages carved in those distant mountains. This is where the *Star Wars* section comes in.

The passages connecting the 25 sectors are filled with electrified Delta gates, much like the tunnel barriers in *Star Wars.* About ten Delta gates randomly stick out the top and bottom of the passage. Smashing into a gate rips away one of the valuable shields protecting your ship. You've got to move a cursor up and down on the screen to maneuver your ship over and under the Delta gates. This part of the game is baffling and difficult at first, but with practice it becomes a Sunday drive. At the end of the passage, you enter a new sector to conquer.

Dimension X is an easy game to like. Intellectually oriented players will appreciate the array of gauges, dials, and radar screens that can be used to gain strategic advantage. The just-let-me-shoot crowd gets plenty of action, and the control panel isn't intimidating. Players who just get off on incredible graphics and sound can stand and watch. The landscape is dizzying and the introductory music does justice to any science fiction movie. Best of all, *Dimension X* is one of the few games you can actually win. If you wipe out all your enemies, you're congratulated with the words, "Well done, warrior. The Rigillian fleet has left the solar system." It's nice to be rewarded once in a while.

Compatibility: Atari
Format: Cassette, Disk
Manufacturer: Synapse Software

Crossfire

W hen you visit a new town or shop in a new store, everything seems confusing at first. Then, as you become more familiar with these new environments, you begin to feel more at home and relaxed. *Crossfire* is much like this. The first game you play will be a five-second attack of sensory overload. As you play a few more times, it all begins to make sense. You start to feel your way around the screen, and you can concentrate

more on strategy than on just staying alive. The more
you play, the more you'll want to play.

The screen is a grid of 42 boxes arranged in columns
and rows, meant to represent an overhead view of city
streets. As the story goes, aliens have landed, and you've
been left to defend the city. You move a nondescript little
figure in four directions through the streets. You can also
fire your gun in the direction you're headed. Along three
sides of the screen, 11 aliens are stationed. The fourth
side is blocked off. As the game begins, the aliens wait
behind buildings (boxes). Then they start to move. The six
at the top of the screen may slide left one row—or
maybe just two of them will. Or the one on the bottom left
slides up a row and takes a shot at you. There's no set
pattern to their movements.

As soon as the aliens begin to move from behind the
buildings, they're on the street and vulnerable. Of course,
it works the other way as well, and you're in a lot more
trouble than they are. After they position themselves in
the streets, they begin moving around the screen. Some
head straight for you. Others trace a zigzag pattern
through the city. All of them fire at you when you get
within range.

When you get hit, a red blotch appears (game
blood) and you lose one life. But when you hit an alien, it
just metamorphoses. The first aliens are diamond-shaped.
When they die, they become circular. When these go the
way of all good aliens, they're replaced by red things
that look like owls. The last group of aliens resemble
Sinistar, a character in the arcade game of the same
name. They're worth the most points. When *they* die, they
disappear (thank goodness). In effect, then, you've got to
kill 11 aliens four times to complete the first board. With
every 12 shots, a small red box appears in the middle of
one of the streets. If you run over it, you're awarded
100–800 bonus points.

C *rossfire* isn't one of those games that start easy and
get harder. It starts hard and gets worse. The first
wave is a killer. In most other games the best tactic is to
concentrate heavily on one thing. But in *Crossfire*, if you
concentrate on the aliens at the top of the screen, you'll

get hit by the one right next to you. And if you watch *that* one too closely, you'll get blind-sided by something streaking down the right side. You've got to learn how to let the entire screen wash over your brain, and almost unconsciously pick off the most threatening enemy. The game requires mind-boggling peripheral vision and a strategic killer instinct. Nothing moves very fast, but everything is moving at once. You can set the game for a fast or slow version. *Crossfire*'s nearly black-and-white graphics aren't anything special, but the game is accompanied by hard-driving, rock-and-roll, TV cop-show car-chase music. The game allows you to turn that off in case someone is sleeping or if you have a heart condition.

If you enjoy being totally outnumbered and sur-rounded on all sides by things trying to do you in, this is the game you've been waiting for.

Compatibility: *Apple II, Commodore 64, IBM PC, IBM PCjr*
Format: *Disk*
Manufacturer: *Sierra On-Line, Inc.*

Shamus: Case II

U sually, shooting games and adventure-style games are at opposite ends of the software shelf. Shoot-em-ups are for shooting nasty things; adventure games are for exploring caves and enchanted lands. Never the twain shall meet. *Shamus: Case II*, along with its prede-cessor *Shamus*, is one of the few games that successfully bridges that gap. You shoot things in the caves you're exploring.

The plot sounds like an adventure: Protected by his drone slaves and mutant fish life, the Shadow is hidden deep in an underwater fortress. You must infiltrate this chamber of horrors, battling mollusks, clams, snakes, and spiked pits until you reach the Shadow's throne room.

It may sound like an adventure, but the action is pure shoot-em-up. You pack a plasmar detonator (in other words, a gun) that whips out big white fireballs as

fast as you can pull the trigger. It's easy to get overly ex-
cited and hurt your wrist playing this game. You can fire
straight up and at 45-degree angles in each direction.
Your projectiles ricochet off any walls they strike. Often,
they'll bounce right back to you. They won't hurt, but
they *can* confuse you.

You're a shamus—a detective—but you look like a
dog wearing a hat. In some of the chambers you're re-
stricted to moving in the bottom of the screen. In others,
you can climb up and down ladders, maneuver through
narrow passageways, and leap over spiked pits. When
you don't have firing capability, the joystick fire button
makes you jump. You'll need that to get past the snakes.
On the more advanced levels, the rungs on the ladders
suddenly disappear and you slide down, usually to your
death.

N ext to *Robotron*, there isn't any game that hits you
with as many enemies at once as *Shamus: Case II*.
Sometimes, the screen is literally swarming with enemies.
It's overwhelming. They're also dropping bombs on your
head. The only consolation is that you're not surrounded
on all four sides, as in *Robotron*. *Shamus* is intimidating at
first, but after a short time you'll be melting hundreds of
crustacean mutants. It's a very satisfying feeling for those
of us who can appreciate these finer aspects of computer
gaming.

But the real thrill is in the exploration. Once you
eliminate the required number of beasties in one cham-
ber, you're levitated to another. It will be slightly dif-
ferent, with new challenges. Some of the chambers have
treasure chests or keys. If there's a lock hanging from a
ladder, touching it earns you two extra lives. Some of the
new chambers are dead ends, which you won't find out
until you lose a few experimental lives. In one chamber,
if you leap across a pit with spikes in it, you receive an
almost subliminal message advertising another game
from Synapse, "Also available—Fort Apocalypse" (see
Chapter 11, "Rescue Games"). Then you fall into the pit
and die. Strange.

Designer William Mataga has kindly given us a way
to chart our progress toward the Shadow. If you hit the
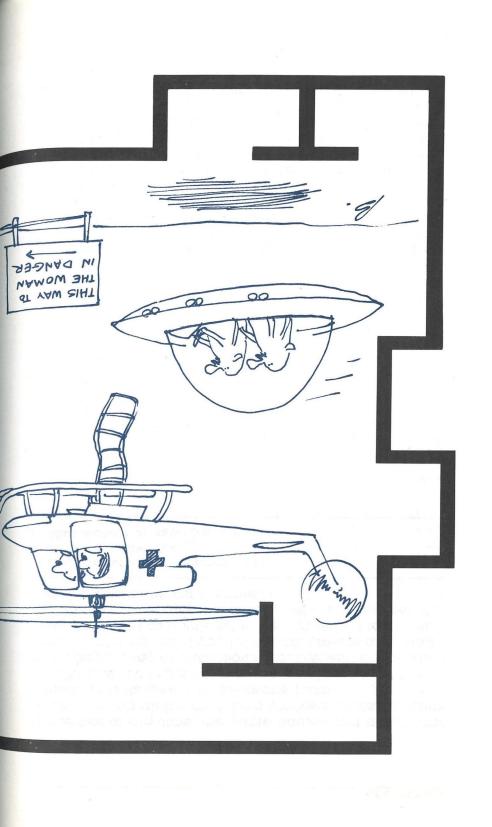
space bar at any time, the game pauses and a map appears showing all the chambers you've successfully completed. It's a long way to the throne room.
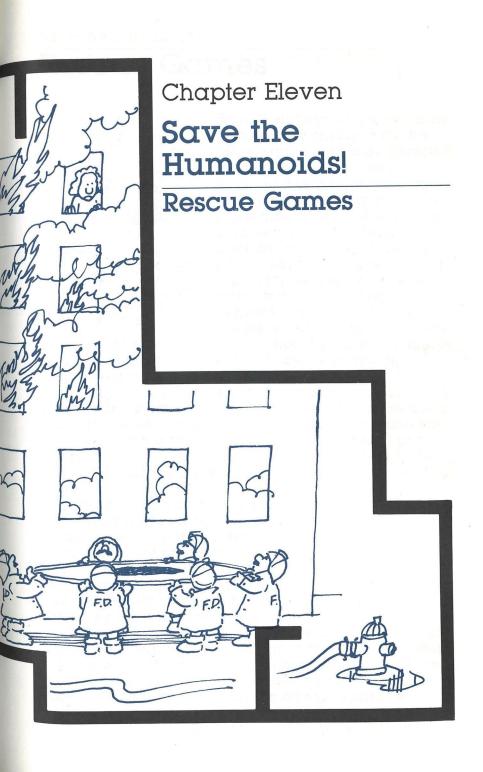
Shamus: Case II isn't for beginners. There's just too much happening at once. Some people will find all those rooms confusing. But if you love shoot-em-ups and want to try one that has a little bit more complexity to it, you should add this to your collection. Just put it *between* the shooting and adventure games.
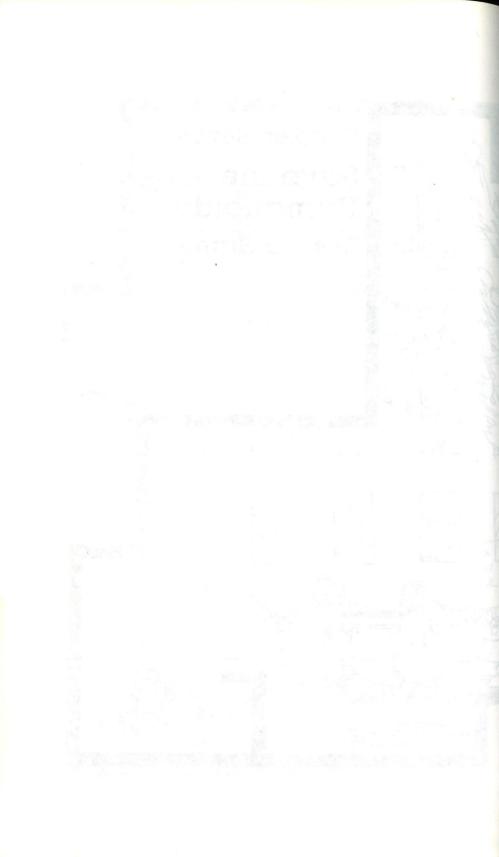
Compatibility: *Atari, Commodore 64*
Format: *Cassette, Disk*
Manufacturer: *Synapse Software*

THIS WAY TO
THE WOMAN
IN DANGER

Chapter Eleven

Save the Humanoids!

Rescue Games
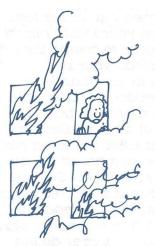
Save the Humanoids!
Rescue Games

From their beginnings, computer games were criticized for the senseless violence they depicted. While it may have been fun to fly around and burn alien creatures beyond recognition, it's not in keeping with what our society considers proper behavior, especially for young people. Aliens, psychologists tell us, just represent people who are different from us. Shooting them is unhealthy and bigoted. (Of course, other psychologists may tell you that shooting aliens is a healthy outlet for aggression that might otherwise be directed against *real* people, but that's another story.)

In any case, shooting games developed a social conscience. The element of rescuing humans from the aliens was introduced. While the actual rescue in a game like *Defender* is just a small part of the overall death and destruction, it does add a humanitarian element to the game. Rescuing is a positive act, even if you have to kill to do it.

Rescuing also added some much-needed complexity to shooting games by giving players more to do. It took away some of the importance of quick reflexes and hand-eye coordination and put more emphasis on strategy. And it provided a motivation more powerful than scoring meaningless points. Even the most cold-blooded alien killers will take time out from the apocalypse to save their stranded comrades.

Before rescue games, the typical shooting game scenario had a defend-your-civilization mentality. But what was there to defend? Usually, a deserted world with no sign of buildings or life. If it got destroyed, who would care? Rescue games give us something to fight for.

Defender

Decades past, your leaders learned that aliens lusted for your world. At once, they set your most brilliant scientists, your most farseeing warriors, to design the ultimate spaceship—something to defend your beleaguered planet. Now, that ship is in your hands....

So begins the scenario of *Defender*, the first rescue game and the game which, to this day, is without a doubt the greatest shooting game of all time. *Defender* is not a game you play to relax. It's a killer game—a rush of pure adrenaline that can only be compared to being trapped in a roomful of swarming killer bees. *Defender* is an overwhelming sensory experience that leaves you no time to inhale. When it appeared in 1980, *Defender* instantly became the ultimate macho game; it made playing *Space Invaders* look like cutting out paper doilies.

What makes the game so intense is the fact that a hundred things are happening at once. You're defending a planet which has ten humanoids walking on it. The planet scrolls left and right as you move your spaceship in either direction. You have six kinds of enemies buzzing around the screen, each worth a different number of points if you kill it before it kills you:

- **Landers** kidnap your humanoids and fly them to the top of the screen, where they're turned into mutants.
- **Mutants** hover above or below you before ramming into your ship.
- **Bombers** lob out aerial mines for you to crash into.
- **Pods** explode into as many as eight Swarmers when hit.
- **Swarmers** surround your ship and blow it up.
- **Baiters** can move faster than you, and fire white charges if the other enemies aren't vanquished quickly.

Your humanoids are defenseless, but you aren't. In addition to the standard computer game laser fire, you've got three *smart bombs* that blow up every alien on the screen at once. In case of a real jam, there's always *hyperspace*, a device that zaps you to another part of the planet. A small radar scanner at the top of the screen shows you the whole planet at once—the full screen image is only one-eighth of your world. Most of your time will be spent killing aliens, but the big points

are earned by rescuing the humanoids, making the world safe for democracy (or whatever political system you choose to defend).

That's a lot to think about at once. The arcade game was controlled by a joystick and five buttons (fire, thrust, reverse, smart bomb, and hyperspace), and many good players found the game so complicated that they couldn't play it. The game was intimidating. The home computer game, of course, uses a standard joystick and is much easier to comprehend. Even so, you need three hands to play it. *Defender* has so many controls that they couldn't fit them all on the joystick. You have to hit keys on the keyboard to activate hyperspace and your smart bombs. Hardcore players put the computer on the floor and hit those functions with their feet!

Unlike a lot of translations, *Defender* captures most, if not all, the thrill of the arcade game. The humanoids yelp in pain when they're captured. The spray of your laser fire lights up the screen, and so does the brilliant explosion of spaceship debris when an angry Baiter blows you away. The sound is so good the rest of your family will probably move out of the house. *Defender* is proof that you don't need fancy graphics for a good game—it's practically black and white, with tiny, nondescript characters. Perhaps the most amazing thing is that the game is now five years old, and with all our technological advances, it's not been topped.

Compatibility: *Apple II, Atari computers, Atari 5200, Commodore 64, Commodore VIC-20, IBM PC, TI-99/4A*
Format: *Cartridge, Disk (Apple, IBM)*
Manufacturer: *Atari Corporation*

Robotron: 2084

Save the last human family! As a genre, the defend-your-civilization games made computer game players feel guilty. But that's nothing compared to how you'd feel if you let Mom and Dad and the kids get turned into mutant Progs. That's the story of *Robotron*. Humankind, in

our endless quest for progress, has created a species of robot so advanced that they're more intelligent than we are. The robots—or Robotrons—have decided that the human race is inefficient, so it must be destroyed. Because of a genetic engineering error in your favor, you possess extraordinary ability. Only you can save the last human family and preserve the species.

Eugene Jarvis, who created *Defender,* has also given us *Robotron.* Both games are classic kill-the-aliens-before-they-kill-you games. *Robotron* may even be an improvement. While *Defender* featured a fairly slow-moving spaceship, in *Robotron* you can race all over the play-field. And while *Defender's* humanoids barely looked human, the family that stumbles around the screen in *Robotron* could be your next-door neighbors. You really do want to save them.

As in *Defender,* you're up against an assorted collection of killer weirdos, this time on dry land. Each Robotron species has different weapons and characteristics:

- **Grunts** chase you in packs, but can easily be blown away with your antirobot laser. (Grunt stands for Ground Roving Unit Network Termination.)
- **Hulks** plod after you slowly. You can shoot to slow them down, but you can never kill them.
- **Brains** fire cruise missiles at you and reprogram your family into Progs that will attack you.

You've also got to contend with Spheroids that launch Enforcer Embryos at you, Cubic Quarks, and Torturing Tanks that release Bounce Bombs.

Fortunately, you don't have to deal with them all right from the start. There are only about ten Grunts to wipe out in the first wave. A new species is introduced in each succeeding wave. There are nine waves in all, but by the fifth wave, the entire screen is crawling with enemies. With little room for you to move, the action gets intense. In some of the waves you can lure the Robotrons into triangular electric barriers, but you may run into them also.

I f you're familiar with computer games, you know that one of the biggest limitations a game designer has is in the number of independent objects that can simultaneously move about the screen. In the upper levels of the arcade version of *Robotron,* it seems that there are hundreds of objects, each moving in a different direction. Amazingly, Atari has managed to pack this incredibly complicated arcade game into home computers.

But the home version isn't exactly the same as the arcade game. For one thing, it's easier, which is a blessing for a lot of people who were intimidated by the original. For another, the arcade game is controlled by two joysticks—one to move around the screen and the other to rapid-fire in any direction. You can use two joysticks like that in some versions of the computer game, but it's nearly impossible to stabilize both of them on a table at home. What works is to have two players cooperate on the game, one holding the joystick controlling movement, the other holding the joystick that fires the gun. If you're playing by yourself, it's best just to use one joystick for everything, even though that forces you to shoot only in the direction you're moving.

Whichever way you play it, *Robotron* lights up the screen with color, explosion, and sound. It's one of the most exciting computer games in existence—a must for anybody who loves shooting games.

(Warning: The quality of *Robotron* translations differs significantly. The version for the Atari computers and Atari 5200 game system are by far the best. Try out any of the others before buying.)

Compatibility: Apple II, Atari computers, Atari 5200, Commodore 64, Commodore VIC-20, IBM PC, TI-99/4A
Format: Cartridge, Disk (Apple and IBM)
Manufacturer: Atari Corporation

Rescue on Fractalus

Fractalus's first-person perspective sets it apart from the rest of the rescue games. A band about half the height of the screen serves as the windshield of your Valkyrie fighter and offers a view as if you were actually sitting behind the controls. And this game has controls! Altimeters, fuel gauge, blinking energy status lights, beeping thrust indicators, artificial horizon display, a compass that works like the kind you have on the dashboard of your car, and 11 other gauges and dials—everything you'd find in the cockpit of a *real* Valkyrie fighter. These aren't ornamentation. Each has a vital function, and you've got to learn to fly the stripped-down spaceship like you do Microsoft's *Flight Simulator.* (At the game's higher levels, you'll have to fly completely by instruments for brief spells.)

Crafted in the dream factories of *Star Wars* director/producer George Lucas, *Fractalus* is one of the galaxy's most inhospitable planets. You're there for a reason, of course—the Jaggi are trying to take over the place and use it as a base to overrun Earth. Some of the Fleet's best pilots have been shot down and are stranded on the planet. You've got to get them out before they die from lack of oxygen or are captured by the merciless Jaggi. At first, all you can see through your windshield are the bright green metal plates of the mother ship's interior. A second later, they slide open and the engines roar as you fly past the stars and descend through the yellowish atmosphere of Fractalus. Towering mountain ranges cover the surface, where jagged, rust-brown peaks and ridges are depicted with a three-dimensional effect never before used in a computer game. Fractal geometry (Logo students have probably used it to create some unusual drawings) enables the programmers to generate very realistic terrain graphics. They're drawn with irregular lines and dots instead of the geometrically precise mountains seen in two-dimensional games. The mountains and plateaus have a sense of depth: You can fly around a mountain, then zoom into a stretch of canyon. The terrain rolls by underneath if you fly high enough. Mountains flash and an audio signal warns

when you're in danger of crashing into a mountain or the ground. The sensation of sailing between a pair of jagged peaks, swooping down into a valley to look for pilots, is breathtaking.

You'd better look fast, though. Jaggi saucers and gun emplacements will knock you out of the sky after they score enough direct hits on your ship. Anti-Matter Bubble Torpedos, which describe a true arc as they're fired, are your sole weapons system. An energy shield deflects some hits and cushions some crashes, but continually needs to be charged. It's tricky to get off a good shot, because the Valkyrie pitches, yaws, rolls back and forth in the air—a person could get motion sickness from extended flights in *Fractalus.* You can often outmaneuver the Jaggi saucers, but you'll have to face them head-on before trying to pick up a pilot in their neighborhood. A targeting scope below the windshield shows a close-up view of whatever's in front of the ship, and crosshairs are projected on the windshield when anything's in the line of fire.

Locating the pilots is the easiest part. Each one has a homing device which transmits signals to your Long Range Scanner when it's within range. The blip's position on the scanner, the rate and tone of the accompanying alarm, and a digital read-out tell you how far away and in which direction you'll find the pilot. Once directly overhead a pilot, you'll see a small white dot on the ground below. Press a key to land (unless you've flying too high). If the pilot is not too far away, he hastily jogs to the ship. This scene's interesting because the animation varies from one pilot to the next. Some pilots run from the left side; others appear dead ahead or from the left. If a pilot's visible through the windshield, you see him growing larger as he nears the ship.

Then he disappears under the Valkyrie and you hear a pounding on the door. (Each sound effect, including those of all the instruments, is unique.) Press a key and the airlock door opens. A line of text at the top displays this and other information, like systems on, boosters off, and so on. The pilot clambers up the ladders (though you never see him again) and shuts the door. Now you can

take off and scout for more. Each pilot is worth 200 points, and you get 2000 for the occasional ace pilots. There's another reason for saving these guys—your own survival. Without the energy cells carried by the pilots, your energy supply dwindles and the ship's shield erodes. And the mother ship won't return to pick *you* up until you've collected at least half the quota of pilots for that skill level.

When a bleep and a flashing sign announce the mother ship's arrival, hit the boosters and rocket through the stratosphere. Back on board, you'll get bonus points for each pilot you picked up beyond your quota. The green metal plates open wide again, and you're headed back to Fractalus on the next skill level. There are 16 skill levels, with increasing numbers of pilots and Jaggi. The Jaggis' aggressiveness and frequency of kamikaze attacks intensify, and flying conditions worsen at the higher levels.

But flying the Valkyrie is the best part of the game. It's a real kick to skim the peaks at top speed, keeping one eye on the scanner for pilots, another on the altimeter, and a third on the view in the windshield.

> *Compatibility:* Apple II, Atari computers, Atari 5200, Atari 7800, Commodore 64, IBM PC
> *Format:* Cartridge (Atari systems, 64), Disk (Apple, IBM)
> *Manufacturer:* Epyx, Inc./Lucasfilms

Choplifter

W ho would have thought that a computer game version of the ill-fated Iranian-hostage rescue mission would be one of the most popular games ever? *Choplifter* (sometimes referred to as *Chopped Liver* or *Shoplifter*) has been on the computer game best-seller lists consistently for two years.

As in the real hostage crisis, a foreign nation has taken Americans hostage. They must be rescued by helicopter. According to the game's instructions, it's not the Iranians, but the evil Bungeling Empire that's committed this treachery. (They're the same folks that terrorized us in

two other Brøderbund games, *Lode Runner* and *Starblazer.*) We're also informed that the hostages are members of the U.N. Conference on Peace and Child Rearing.

Whoever they are, the game is a helicopter rescue mission. There are 64 helpless and defenseless hostages trapped in four barracks, 16 in each. You've got to land your helicopter near the hostages, wait for them to scamper aboard, and get out of there. You must rescue all 16 hostages from one barracks before you can move on to the next. The Bungelings don't just stand around and chant slogans when the TV cameras come on—they send in tanks, jet fighters, and air mines. Your helicopter is equipped to fire missiles when it's pointing left or right and drop bombs when facing forward.

Choplifter was the first computer game with a social conscience. In all the other rescue games, saving prisoners is really secondary to shooting aliens, blowing up buildings, and generally having a good time working off your day-to-day frustrations. *Choplifter,* on the other hand, is a nonviolent shooting game. The object of the game is not to waste everything in sight, but to get those little guys and bring them home. You don't even score any points for hitting the enemy tanks or planes. In fact, hostages may be senselessly killed because you initiated a battle with a platoon of tanks. The top score is 64— rescuing every one of the hostages. It's not a game for people who just want to shoot and kill things.

But even the most coldhearted gamer wants to save the hostages, who have been programmed to be adorable. They run around on the ground below your chopper waving their little hands at you, and they run to wherever you land. When you drop them off safely, some of them give a little "so long" salute as they leave the chopper. You can't help but care when they get mowed down by the tanks or (yuck!) squashed beneath your helicopter. Until you learn the subtleties of the game, you'll be killing more hostages than you save. Even when you become an expert and can rescue 30 or 40 in a game, the sense of accomplishment is tempered by the scoreboard, which indicates that 25 or so were left for dead.

C *hoplifter's* animation is spectacular. Your helicopter pitches and moves like a real helicopter: When you accelerate forward, the nose pulls up slightly. The landscape scrolls smoothly left and right, with the objects in the foreground moving faster to provide a sense of depth. The long fence separating American territory from the Bungeling Empire appears to be truly three-dimensional when you fly past it. The game isn't terribly fast-moving, but it isn't terribly slow either.

Oddly enough, the Commodore VIC-20 version of the game licensed to Creative Software has some flourishes not found in the *Choplifter* versions for more powerful computers, like Apple and Atari. On the VIC, the stars in the sky move when you move, giving an even greater illusion of depth. Also, when your helicopter is hit by enemy fire, it breaks apart and falls to the ground in pieces. However, the VIC version lacks the moon in the sky, and for some reason, has been programmed to be very easy. Only in this version is there a warning before the jets attack you.

Choplifter is unconventional in that there is only one skill level and your score doesn't stretch into the hundreds of thousands. But the game is terrific, and fans of just about every type of computer game seem to enjoy it. It's a particularly good game for beginners because the mission is obvious—save the hostages.

Compatibility: *Apple II, Atari, Commodore 64, Commodore VIC-20*
Format: *Cartridge (Atari, 64, VIC), Disk (Apple, Atari, 64)*
Manufacturer: *Brøderbund Software, Inc.; Creative Software (VIC)*

Fort Apocalypse

I f you like *Choplifter,* you'll love *Fort Apocalypse.* Game designer Steve Hales has taken the helicopter rescue mission theme and made it even more exciting, more complex, more spectacular, and more fun. One magazine said that *"Fort Apocalypse is to Choplifter what Super Breakout is to Pong."* In other words, it's a souped-up,

modern version of an already incredible game.

Once again, we've got the enslaved masses tucked away and held captive by nasties, this time called the Kralthans (which looks like it might make some sense backward, but doesn't). You're flying a helicopter that looks and handles much like the one you piloted in *Choplifter*. The flying is realistic to the point that the blades whoosh around faster when you move forward than when you're just hovering. Generally, the chopper stays near the middle of the screen, while the terrain scrolls by. Your *Fort Apocalypse* rocket copter is burdened by something you didn't have to worry about in *Choplifter*—gravity. You've got to constantly tap your joystick or you'll crash. You've also got to worry about your fuel level in *Fort Apocalypse.*

Unlike *Choplifter*, this time the hostages aren't running around and waving at you. They're being held captive underground, and you've got to battle your way just to get down there. On the surface there are tanks, saucers, and other helicopters harassing you. The tanks, incidentally, can be destroyed only by hitting them in the treads. The passage to the caves is covered with cinder blocks, so you've got to blow them apart with bombs in order to create a hole your helicopter can fit through. If another helicopter flies above you while you're doing that, you might as well kiss that life goodbye.

That's the easy part. Once you get to the first level below the ground (the Draconis Caves), you're hit with an incredible barrage of obstacles. Force fields blink on and off, destroying anything that happens to be hovering in their paths. Moving walls crush your flimsy copter if you can't figure out how to get past them. There are more walls to shoot through and more helicopters shooting at you. Your flying skills become crucial, because the passageways are quite narrow.

Eight prisoners must be rescued before you can go down to the next level, the Crystalline Caves. More hazards await you there, and eight more prisoners. Once you pick them up, you enter Fort Apocalypse itself, which must be destroyed with a single well-aimed missile. Finally, you scoot back to the surface, chased by justifiably upset Kralthans.

This is one tough game. Your reflexes, as well as your logic and reasoning, are put to the test. A radar band (navitron) helps, but you're pretty much on your own. Beginners would do better with *Choplifter*, which doesn't demand as much concentration, precision, and navigational skill. *Fort Apocalypse* can be very frustrating, even for advanced game players. It's also addicting.

The graphics, booming sound effects, and gameplay are equally astounding. The field is mainly black. It's particularly impressive when you're in the Draconis Caves, for you can see the action taking place on the other levels at the top and bottom of the screen. The game's explosions—which vary according to what's been hit—will make you close the door so the neighbors don't get frightened.

But *Fort Apocalypse* can't claim to be as socially responsible as *Choplifter*. Sure, there are hostages who must be rescued. But your primary objective is to get to the fort and reduce it to slag. The game is more goal-oriented than *Choplifter*, which seemed to end with a whimper. In *Fort Apocalypse*, you have that ultimate goal of reaching the fort. Along the way you're more interested in seeing what the next cave has to offer than picking up any hostages. Still, its heart is in the right place.

They may not be *Blue Thunder*, but *Choplifter* and *Fort Apocalypse* have shown that helicopters can be just as exciting as jet planes and rocket ships. Passivist players may prefer *Choplifter*, while *Fort Apocalypse* is for those who are really out for blood. Play it safe and get both—they're terrific in different ways.

Compatibility: *Atari, Commodore 64*
Format: *Cassette, Disk*
Manufacturer: *Synapse Software*

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Rescue Squad

A rescue category wouldn't be complete without a game in which you have to save people trapped in burning buildings. *Rescue Squad* is a clever triple-screen game that uses the rescue theme to tie the screens together. Actually, this is three games in one.

In the first screen, you drive an ambulance from the bottom-left corner of the screen to a blazing building at the top-right corner. It's a bird's-eye view, and with a grid of four cross streets, the game looks like *Frogger* at an intersection. Cars and trucks are zipping back and forth at different speeds, making it difficult for you to negotiate the city without cracking into a vehicle or the curb. You'll get to the fire—it's just a matter of time. Points are awarded for getting to the fire quickly.

In the second screen, you're standing outside the burning four-story building. This part of the game is the most fun, in a perverse sort of way. The residents—hundreds of them—start jumping out the windows. It's your job to catch them by moving your firefighter left and right below the windows. It's something like reverse *Space Invaders*—you try to get hit by humans. For some unusual reason, the humans falling out of their windows look like baby crocodiles. Even stranger, some are black, some blue, some purple. Different point values are given for catching the various colors. Don't ask why, just try to catch as many purple people as you can.

There's a catch—flowerpots are falling out the windows along with the people. Getting hit by falling flowerpots isn't good, and these people seem to have more flowers than Forest Lawn. It's a weird kind of rescue game because you quickly realize that you might be better off *not* rescuing people. There's no penalty for letting bodies hit the ground; it's worse for you to get hit by a flowerpot. So the best strategy is to let the bodies fall where they may and carefully go after the purple people for big points. The more ethical practice of attempting to save everyone in the building is admirable, but it won't win the game.

After you're hit by the third flowerpot, a fire truck pulls up and you climb the ladder into the burning building. This becomes screen 3, which is a standard maze game. You see an overhead floor plan with close to 13 people scattered about, presumably suffering from smoke inhalation. Also on the screen are three or four stationary asbestos jackets and two fireballs, which move randomly through the maze. You've got to move your little firefighter through the maze, pick up the people, one at a time, and carry them to the window. If the fire touches you, you'll burn like a marshmallow. But if you touch a jacket, you're invulnerable to the fireball for a few seconds.

The three screens flow smoothly to make a continuous story. *Rescue Squad* is one of the few games in which most people will be able to finish the last screen. After all the people are rescued, you return to the first screen to chase after another blaze. The game gets faster and harder at that point. There are nine skill levels. The top-ten all-time scorers get to punch their names into the Immortal Rescuers screen.
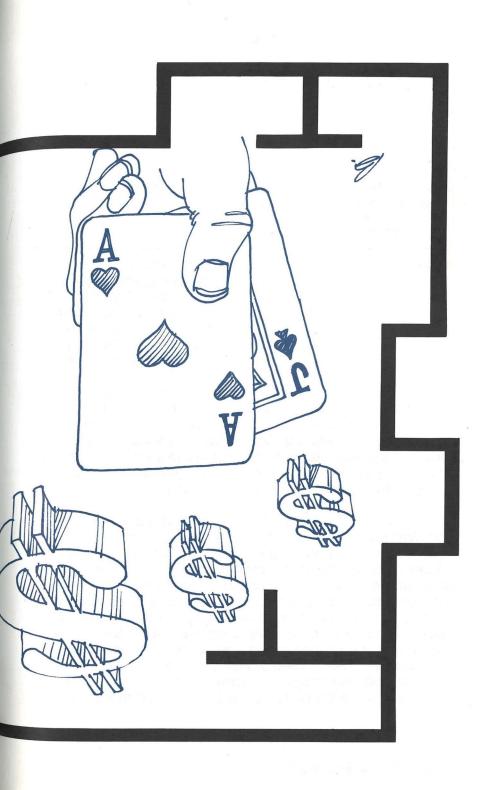
Perhaps the best part of *Rescue Squad* is the music. At least four different themes play during the game, from the triumphant fanfare on the Immortal Rescuers screen to the silent-movie chase-scene music that accompanies the race to the fire. The game was written by John Kutcher, who also wrote *Space Taxi* (see Chapter 6), another game in which sound plays a big part.
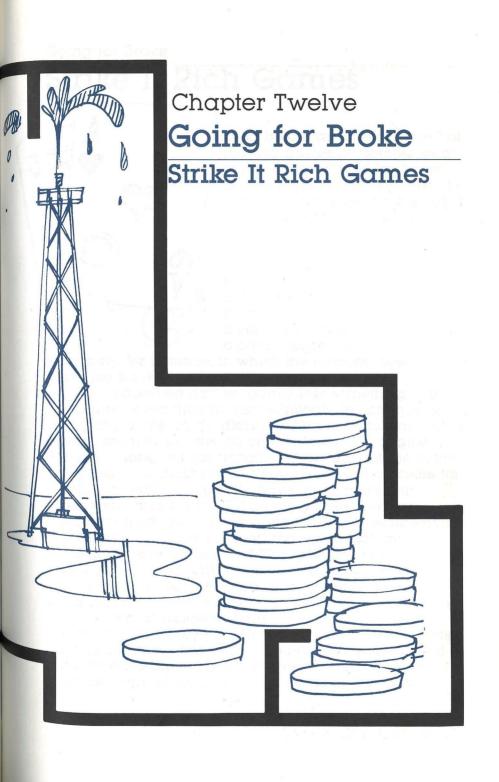
Compatibility: Commodore 64
Format: Disk
Manufacturer: Muse Software

Chapter Twelve
Going for Broke
Strike It Rich Games

Strike It Rich Games

Long before anyone dreamed of playing games on computers at home, the most popular board games revolved around that all-American dream—making big bucks. Easy Money, Monopoly, Careers . . . the list of money-oriented board games is longer than Nixon's enemies list. When home computers became a reality, it was only natural for programmers to convert some of them to electronics. You can find a computerized version of Monopoly, for instance, in which the microprocessor plays the banker and rolls the dice for you.

But established games usually lose something in the translation, even though they eliminate the chance of losing any of the cards, dice, or little plastic tokens that always seem to wander off on their own. The original scenarios designed specifically to take advantage of the computer's capabilities, not simply using the machine for number crunching, typically have much more flair, excitement, and action. Not all the games here are board-oriented, but they do have the same requirements for victory—raking in the most money. In fact, some are more than mere games, and illustrate how real high rollers clean up on Wall Street, for example.

Simulations like these are as much fun to play as a good shoot-em-up, though strategy and comprehension of how the real business world operates are more important than hand-eye coordination. And there's a better chance that these tips and strategies will really pay off than the odds are against you ever shooting down a genuine Jaggi spaceship from the planet Fractalus.

Oil Barons

Black gold is one way to strike it rich, but you'll find out fast that it's also a good way to quickly go broke. Fortunately, there's a lot of fun in the process. Most of *Oil Barons* is presented in text, with a few graphics thrown in to keep things lively. At the start, each of up to eight players gets one and a half million dollars and four plots of land. The plots take the form of two numbers, referring to coordinates on a large board, pieced together like a jigsaw puzzle, that you set up alongside the computer. A square grid covers photos depicting the types of terrain: jungle, city, swamp, mountain, desert, ocean, or forest. The program randomly generates oil deposits at co-ordinates corresponding to different regions of the map. Players can personalize the game by inventing oil com-pany names that appear during their turn (Kramden's Crude, Norton's Oil, and so on).

When your turn begins, you see a balance sheet list-ing your cash assets, and you can choose to survey and/ or drill any of your sites or pass the turn. Punch in some coordinates, and the next screen tells you how much a survey will cost; then it asks if you want to survey, drill, or pass. Prudent would-be oil barons will survey first, though wildcatters may want to go straight for a gusher. When you survey, a cross-section view of the terrain you've selected fills the screen. If Kramden's Crude elected to drill an ocean site, the deep blue sea appears, with its jagged floor line of underwater mountains. A little boat sails out, lowers data recorders, and sets off depth charges. Shock waves ricochet through the ocean; then the 30-second scene returns to an all-text survey report. The report describes the terrain, and it might indicate that the rig and labor in drilling will cost $111,000, and that the chances of striking oil are only 29 percent. Other factors, like cost per foot, maximum drill depth, and other costs are noted.

Choose to drill, and an oil rig pops up. The drill bit clicks along as it bores through the water and earth. Text at the bottom of the screen tells whether you struck oil, limestone, fossils, or even Hong Kong. Plastic tokens in-cluded with the game are then placed on the plot to in-dicate the results of the drilling operation. Blue tokens

indicate a dry hole, while green ones note the presence of an active rig. Each player cycles through his or her plots until either all have been drilled or the player passes. Occasionally, the program breaks in and announces that "Due to the demand for oil, all players can drill one plot." Auctions permit you to bid for new plots, and several computer-controlled oil companies participate, juicing up the action. In a solitaire game, this bidding gets so intense that you may get carried away and accidentally wind up bidding against yourself! Players may also trade plots.

After each turn, a royalty check shows up on the screen. Drawn on the computer's Memory Bank, the check shows how much you've made from each active well during that round. This is followed by balance sheets listing your assets, net worth, expenditures, and taxes paid. Finally, page 1 of the *Financial News* informs you of "Oil the news that's fit to print," usually humorous stories that serve as a light touch rather than provide any useful strategic information. The current turn and number of turns remaining are also noted in the paper. At the end of the game, the winner is announced on the front page of the paper's final edition.

D on't worry if you run out of cash—this game understands the principle of deficit financing. Just like the real world, you can operate your oil company millions of dollars in the red while praying for a gusher the next turn. Strategy is vital. Should you survey all your sites before deciding where to drill or go with a hunch and a positive survey on the first one? You also have to weigh the cost of drilling against the chance of success predicted by a survey. Proximity of land owned by another player must be another concern. If you strike oil, a rival will likely find some, too, and profit from your discovery. Keep a close eye on the other players, because an apparent flaw allows you to type in the coordinates of land you don't even own, or of another player's property. In some computer games, this oversight might render the game unplayable. But in *Oil Barons*, it only complements the spirit of greed and land grabbing that make the oil business so much good old-fashioned

American fun. If you're not careful, you may find yourself cackling like J.R. Ewing.

The variety of player-adjustable parameters makes the game even more fun, and means you won't tire of it in a few weeks. Before starting, you can choose the method for determining a winner: Specify the amount (two million to one trillion dollars) a player must win, or pick a number of turns to play and award the game to the player with the most money at the end. You can play the Classic game, which has more of the traditional board game feel to it, or the Reality game, a more authentic simulation of the real oil industry. It's even possible to personalize some of the game's text, such as the line that says, "You just hit mineral deposits," which could be changed to read, "You just hit Sheboygan." Quick versions of each are offered. Lengthier games may be saved in progress and continued later.

Oil Barons is an excellent game for all ages, best for several players, but a good solitaire game as well. (Note: Commodore owners may not agree with this last remark. Due to the combination of constant disk access and the Commodore's notoriously slow disk drive, you spend too much time waiting and too little playing.)

Compatibility: Apple II, Commodore 64, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Epyx, Inc.

M.U.L.E.

Gamers who've built more than their share of little green houses and red plastic hotels on Baltic Avenue and Boardwalk will feel right at home with this wheeling-and-dealing computerized board game. But the real estate you're exploiting this time happens to be on another planet. From the eight species of aliens shown at the outset, all players select a creature to represent them onscreen. (Each alien species has specific capabilities, and choosing a Bonzoid over a Mechtron can have long-term effects in *M.U.L.E.*) Once you've made your choice,

an animated rocket drops you and up to three other players onto the surface of an uninhabited planet. Your mission—colonization. The colonist with the greatest net worth—measured in food, energy, and local minerals called smithore and crystite—when the ship returns is dubbed First Founder of the colony and wins the game.

Bold colors and simple, yet effective graphics illustrate the planet's surface of river valleys, flatlands, and mountains. Players move a color-coded square cursor and hit the joystick fire button to stake out a plot of land from the available 44. This is the land-grant phase. The type of land you choose determines the kind of materials which can be produced. Shrewd planning is essential from the very first move, because you'll eventually get bonus points for selecting adjacent plots and for producing the same product on three different plots.

Moving your character to the town and buying the right M.U.L.E. is next. You'll pick your M.U.L.E. depending on the type of material you've decided to produce. Guide this mechanical factory to your plot. After everyone else does the same, little blocks crop up on the plots to represent the goods produced by each M.U.L.E. Random bits of animation enliven this phase. Occasional meteor showers and earthquakes wreak havoc with your fortunes, or bulletins stream across the screen announcing that a particular player has won a cash bonus. There are also Pest Attacks, Planetquakes, and Acid Rain storms.

The crucial auction phase is also animated. You can auction off your new assets to any other player or buy needed goods by bargaining with others to settle on a price. The local store sells and buys the same goods, and a product's value, like $15 for food, skyrockets when the store runs out of food. That's when farmers can clean up if they hold out for high prices in this phase—or refuse to sell food at *any* price, and let them eat smithore! Even in the one-player version, the computer plays for three other characters, so there are always four players in the game. This keeps the auction and land-grant phases lively.

After a status screen shows each player's score in terms of money, goods, and land, the colony's collective

total is displayed. In the tournament version, the colony must make at least $60,000 before anyone can win. This introduces an element of cooperation which must be balanced against the game's inherent competitive nature. Players can form secret partnerships, then stab each other in the back—all the things that make real American economics, the game's basis—so much fun.

M.U.L.E.'s realistic portrayal of economics actually qualifies it as an educational game of sorts. But it's such an engrossing and stimulating strategy game, with a clever scenario and excellent player interface, that you'd have a hard time convincing anyone they were getting anything but fun, and a few tons of smithore, out of the game. As a computerized board game, *M.U.L.E's* four-player tournament version makes Monopoly look like vestiges of an ancient civilization. (So these are dice, huh? What are those little stacks of cardboard for?)

> **Compatibility:** *Atari, Commodore 64*
> **Format:** *Disk*
> **Manufacturer:** *Electronic Arts*

Millionaire

The only thing missing in *Millionaire* is a built-in spreadsheet that allows you to run "what ifs?" on the diverse stock transactions available in this game. At the Novice level, you can only buy stocks. Turn your $10,000 into $12,000, and you become an Investor who can purchase stock on margin by borrowing against assets. Rack up $18,000, and the Professional level's more exotic put-and-call options enhance your chances of amassing a million, the ultimate goal. You won't do it in a single session. This is a long-playing game, a financial version of *Zork* or *Ultima II*, set in the strange, hidden world of Wall Street, where your sword and lamp are replaced by a portfolio and an index of daily stock quotes.

Involving 15 major corporations, the weather, Congressional legislation, labor strikes, and a myriad of other factors that affect stock prices, an entire interrelated set

of events and trends is generated for each new game. Though this makes it more of a simulation than a game, it's more exciting than a lot of shoot-em-ups.

Based on these trends, the first graph shows the stock market's rise and fall for the past 14 weeks of a 91-week game. Press a key and another graph appears, this one showing the recent track record of a particular industry like auto, computer, or one of three others. Next, the *Financial News* takes over the screen, updating you with short bulletins on events that may affect the market.

The key to making a killing lies in correctly reading these signs. If Conoco's Indonesian oil rigs were just wiped out by a typhoon, will its stock go up or down? How will that change the price of Exxon and Mobil stock? Shrewd speculators will scribble down each news item and try to detect a trend before plunging in cold. After the news, daily stock quotes run down the screen in five columns that list each stock's initials and its high and low for the day, closing price, and change in value. At the bottom, the total market's gain or loss and other general information are noted. Scrutinize this raw data. It tells whether your stock is increasing or decreasing in value. Hit a key and enter Command Mode. A window at the top announces the current week, your net worth, current loans, and other information. The menu below offers commands to summon up even more screens: Type *buy* to see the stock prices listed; *stock* to view the contents of your portfolio and how it's faring; *graph* to see graphs of any stock or industry's performance; or rescan the news by typing *news.*

When you've traded all you want, type *week* and the cycle repeats. These and eight other commands can be executed from any other section as well as Command Mode. Flipping back and forth between intricate graphs, summarized corporate histories, and row after row of little numbers evokes an eerie sense of power as you penetrate the high-stakes world of Wall Street. It's easy to get caught up in *Millionaire* and forget all about Mary Tyler Moore reruns for weeks at a stretch.

A s in the real market, the broker holds a hand out for a percentage on each transaction. In *Millionaire*, the broker takes 1.5 percent, and the government collects a 30 percent tax on all profits. Your wins and losses ebb and flow when your capital's invested solely in stock, but whipsaw wildly when playing the more exotic put-and-call options, or when you go all out on a wild hunch by buying everything you can on margin. It's really a fascinating lesson in the machinations of Wall Street. In fact, a number of high schools and colleges have incorporated *Millionaire* into their courses. (It works differently from the real market in some ways, and the author suggests reading Dun & Bradstreet's *Your Investments* before trying to apply lessons learned here with real money.)

At the end of 91 weeks, your stocks and options are converted into cash and saved to disk along with your name and status. A scoreboard records up to 14 players and their scores (cash assets) and status on the game disk; it's displayed when you start the game. Next time you play, you'll start with the money you've made, and a new set of market trends and conditions. You can also save a game in progress.

It takes about an hour and a half to finish 91 weeks, and the action's so compelling that you may not be using the save option as often as you might think. Staring at a nonstop series of charts, numbers, and text—mostly numbers—sounds dull. But *Millionaire* turns out to be as addicting as *Pac-Man*. Wheeling and dealing in thousands of shares of IBM, General Motors, and Exxon transforms this visually weak simulation into outstanding cerebral entertainment for the thinking gamer.

Compatibility: Apple II; Commodore 64; DEC Rainbow; IBM PC, IBM PCjr, and work-alikes; Macintosh; MS-DOS; NEC APC; TI Professional; Wang
Format: Disk
Manufacturer: Bluechip Software

Run for the Money

Like *M.U.L.E.*, this entertaining business simulation is set on the surface of a distant planet. But there's less of a board game feel, and the accent on more action and excitement increases its appeal to younger players. At the highest of the three skill levels, it's still challenging enough for older gamesters. Both players are represented by animated Bizlings, triangular-shaped creatures with wildly waving antennae and four legs who roam the universe looking for good business opportunities. At the outset of *Run for the Money*, your ships have been damaged by zingers, which eroded the protective paint screen that shields the engines. The object is to wheel and deal with the native Simians, monkeylike beings, and make enough money to buy the paint needed to repair the ship and take off. The first one to do so wins.

Your ships sit on opposite sides of the screen. The big screen on the bottom of your ship must be painted; the top holds a sign that tells how much you're selling your goods for this week. Switches to work the factory in your ship and the billboard are also displayed. Below are three Ruf houses. Legs and antennae waving, you move your Bizling into a house to purchase Rufs. That's what you'll use to create the product you'll sell to the Simians. You wait until the price shown on top of the house drops to what you're willing to spend on each Ruf, then hit the fire button. It may fall to zero, in which case you can't buy from that location again this week. Your Bizling can buy from only one Ruf house each turn. Strategy comes into play here, because the three houses offer their Rufs at widely varying prices and in three grades: low, medium, and high quality. The Simians will pay more for quality, though you can pull bait and switch tricks on them just like at some used-car lots.

When you press the fire button to buy the Rufs, five appear on the ground outside. You must run over and collect them; as you mash the button, they're teleported to the section of your ship that doubles as a factory. Then you move your Bizling over to the switch and turn on the factory, which converts the Rufs into Synannas. As the

Simians swing by on a vine hanging over the ships, you can attract them by activating your billboard, a flashing Synanna. Advertising costs, though, just like in the real world. This increases the rate at which the Simians loop down with their tails and buy Synannas. Their shopping habits are based on quality and price, as well as on other factors. They're comparative shoppers. You can end up in price wars just like gas stations.

While both players simultaneously scurry around the screen to produce as many Synannas as possible (a worthy goal and noble purpose in life if ever there were such things), the sun slowly moves across the horizon. The sky shifts from yellow to red, then to black to mark the end of the week. You view the results of your work in a series of animated graphics that show how many Rufs you bought and sold, and the prices and costs of advertising. An elastic bar graph displays how much you made or lost. Next, you get a look at the *Simian Vine,* a newspaper with tips on the weather and local holidays, both of which affect the shopping habits of the picky Simians. You even get a simple spreadsheet that lets you easily figure "what if?" projections on how your profits will be influenced by raising selling prices, cutting Ruf quality, number to be bought, number expected to be sold, or other factors. The bottom line resulting from this menu-manipulated spreadsheet is a prediction of how much you'll make next week. The player who most closely matches his or her prediction wins a hundred dollar bonus. You get one last chance to change your selling price before the launch countdown begins. It lasts only five seconds, and you can hit the fire button and try to take off if you think you've covered enough of the shield. The paint is erratically made available throughout the game when a six-wheeled truck pulls up. A Bizling goes to each side, letting you bid with the fire button. Each time you hit the button, the price shown at the top of the truck goes up. The high bidder gets a supply of paint to spray on the blank paint shield.

A game can be saved in progress and continued later. Several humorous, but realistic, strategies are outlined. The Star Wars Strategy says that if you're making

money with a strategy, don't change. There are also the Copycat Strategy and the Burger Strategy, based on lots of advertising. These are fun to try out, but working out your own devious schemes to bilk the Simians provides the game's biggest kick. *Run for the Money* is a fast-moving, well-animated game with plenty of ongoing interaction between players—everything seems to be happening at once. The economic principles and the algorithm upon which the game is based were formulated by a Ph.D. in economics at MIT, which makes it as educational as it is fun to play. *Run for the Money's* player-friendly interface makes it easy to jump right in and learn the game by running around and doing stuff. The mix of arcade-style action and business strategy, backed up with jazzy music and spunky sound effects, make this a classic piece of entertainment/educational software.

Compatibility: *Apple II, Atari, Commodore 64, IBM PC, IBM PC XT, IBM PCjr, Macintosh*
Format: *Disk*
Manufacturer: *Scarborough Systems, Inc.*

Ken Uston's Professional Blackjack

Ken Uston has been booted out of every big-time casino in the country. After booting this program, you'll understand why—his card-counting techniques, which can be practiced as you play this game, give a decided advantage to the player. Four widely recognized systems are explained in a 50-page manual which supplements the documentation: Basic Strategy, Plus/Minus Count, Advanced Plus/Minus, and Uston's Advanced Point Count.

The Basic Strategy session deals a pair of cards to you and an up-card to the dealer, teaching you how to play your cards in every possible situation. Then you can practice in the areas where you scored poorly. In a series of flashcard-type drills, the computerized coach tests your skill at keeping track of the count. Hardcore gamblers can bypass these lessons and jump right into a game by selecting that option from the main menu (but even the sharpest players will profit from some practice).

First, you're prompted to pick Vegas, Reno, or Atlantic City. This leads to a list of the key casinos in that particular gambling mecca. Experienced 21 players already know that the number of decks of cards in a game (1–4) and certain rules (allowed to split aces?) vary from house to house. Uston saw to it that the current rules for Caesar's Palace, Benny Binion's, and the rest were accurately represented in the program. A special feature allows you to edit these rules to reflect any subsequent changes by the management.

At the outset of the game, you type in your name, the system you're using, the size of your stake, and the value of individual chips. Up to seven players can participate. The computer will play a few hands if you're alone and want some company at the table, or if you want to see how well it does with a specific system. Finally, the house rules are listed onscreen, so you'll know what you're up against. A rich green felt table fills the screen, with the casino's name in the middle.

After tapping a key from 1 to 9 to indicate the number of chips you're betting, the computer tosses redbacked cards onto the green felt as fast as any human dealer this side of Glitter Gulch. (The maximum bet is limited to nine chips because increasing your wager by more than a 1-to-9 ratio would attract the attention of sharp-eyed pit bosses who are constantly alert for card counters.) A line at the bottom of the screen reminds you to press 1 to hit, 2 to stand, and so on. Players' names appear in small boxes arranged in a semihorseshoe pattern, as though around a blackjack table; your cash on hand and current bet are displayed above your name. Make an incorrect play (according to the system you've selected), and a discouraging sound accompanies the flashing message, "Incorrect Play." At the top of the screen, a color-coded box matching a strategy chart in the manual shows the correct play. Though applied lightly, sound plays an effective role. The riffle of the cards as they're being shuffled and the way they snap when flipped onto the table enhance the action as you double down a $500 bet against the dealer's queen of diamonds.

Even if you never attain the proficiency needed to break the bank (as Uston's team did at a French casino), the simpler systems and computer-coordinated instruction in *Professional Blackjack* are your best bet in the field of gambling software—with a reasonable amount of practice, you might rake in enough to at least cover your room and bar tab the next time you hit the *real* felt tabletops.

Compatibility: *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr, Leading Edge PC, Macintosh*
Format: *Disk*
Manufacturer: *Screenplay*

Chapter Thirteen
Disk Drive
Detectives
Murder Games

Murder Games

Whether you're an armchair Agatha Christie or a 64K Colombo, computerized mystery games give you a chance to solve the crime yourself rather than read about it or watch it on TV. Games like this were popular back in the 1930s, offering avid mystery fans a package consisting of the characters' biographies, details on the setting, clues, and maps. This type of game has recently enjoyed a renaissance, with updated versions featuring a variety of intriguing plots. None can match the suspenseful realism of computerized murder games, though, which slap a pistol and badge in your hand and drop you off at the scene of the crime.

Some are adventure games, others are animated. It's the topic, not the game mechanics or player interface, that puts these diversions in a class all their own. The scenarios range from the Roaring Twenties to the distant future, and the assorted gang of killers found in the following games would make Bonnie and Clyde look like Sunday School teachers. So light up a nonfiltered cigarette, knock back a shot of whiskey, and don your Sherlock Holmes cap—as the master himself might have said to Watson, "The computer game's afoot!"

Deadline

Though Sierra's *Mystery House,* a graphic adventure, was the first computer game to transform the player into a disk drive detective, *Deadline* provides more authentic investigative techniques as you ramble through the sprawling two-story mansion on the Robner estate somewhere in contemporary Connecticut. It's an all-text adventure rendition of mystery fiction's classic "locked room" formula: The body is discovered in a room with only one door, which is locked from the inside.

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Marshall Robner, industrialist, tycoon, philanthropist, and general loner, apparently killed himself with an overdose of Ebullion, a sedative. A small bruise on his left temple is the only indication of foul play, though the coroner's report (included with the documentation, along with other official papers full of evidence and clues) attributes this to Robner's fall from the chair when he passed out. Mrs. Robner greets you at the door, and you can join her and Mrs. Rourke, the maid, in the kitchen or prowl the premises until you find Robner's study. Clues on the scene range from crumpled notes in the wastepaper basket to a suspicious white powder. Duffy, your able assistant, will pop in to carry one piece of evidence at a time to the crime lab for analysis, returning a few minutes later with the lab's findings.

You see, until you've established—by discovering physical evidence—that Robner's death was actually a murder, you can't very well arrest the perpetrator. Of course, you may accuse any of the suspects, a good way to elicit a telling reaction under the proper circumstances.

And there's a gaggle of suspects to grill: Mrs. Robner, the dingbat wife; her sullen, eccentric son, George; Ms. Dunbar, Robner's live-in personal secretary; and Baxter, his business partner. Each appears to have a motive for murder. Several motives revolve around Robner's will, which leaves everything to his wife and son. At the noon reading of said will, the lawyer hints that a *new* will might exist. This would give George and his mother an even stronger motive. Does it truly exist? Or does Baxter stand to profit most from Robner's death, due to shady business dealings? And what about Mrs. Robner's secret lover? Questioning this crew is initially frustrating, because you can't ask why, when, how, or who about anything. Instead, you ask an individual to tell you about something or someone, or show them something, then draw inferences based on their responses and how they correspond to other people's statements and the evidence. As background, the documentation includes a transcript of interviews conducted with each suspect by detectives immediately after the death.

The complex nature of the crime and interplay of the

many characters make *Deadline* one of the all-time toughest adventures to solve. It's also one of the most truly interactive games, with ten alternative conclusions (depending on whom you decide to arrest, the evidence, and other factors). If the unseen district attorney agrees that you've found enough evidence to justify a trial, a letter arrives onscreen and reveals the results. All sorts of unexpected things can happen. Key suspects can get bumped off while out on bail, and since the killer's still stalking the house during your investigation, he or she might silence you permanently if you get too close to the truth.

It's also a well-written adventure. Marc Blank's prose is understated, yet evocative. The scent of roses drifting across the lawn, that burning sensation in your throat after swigging down some of George's Scotch, the sight of an orchard blossoming with pears, peaches, and berry bushes. You can even cut yourself on a piece of broken china. The characters, too, come to life, each with a distinct personality.

Don't get so involved with them that you lose track of time, though. You've only got 12 hours, from 8:00 a.m. to 8:00 p.m., to solve the crime. A clock ticks away the minutes in the upper-right corner, and Officer Klutz drives you off into the sunset if you don't crack the case. The Script feature (which prints a copy of everything displayed onscreen) is particularly helpful in *Deadline*, allowing you to study the characters' statements, expressions, and reactions at your leisure. Up to seven investigations can be saved to a separate disk. (A feature that real-life detectives would probably kill for.)

Compatibility: Apple II, Apricot, Atari, Commodore 64, Commodore Plus/4, C/PM, Data General Desktop 100, Data General Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0, Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80 Model III, TRS-80 1000 PC, TRS-80 2000 PC
Format: Disk
Manufacturer: Infocom, Inc.

The Witness

Deadline proved difficult enough to provide many adventure gamers with a motive for murdering its programmer—any judge who's played the game would certainly rule it a case of justifiable homicide. *The Witness* is a more appropriate entrée into computerized whodunits for those who prefer all-text adventures to games like *Murder on the Zinderneuf.* It's easier than *Deadline,* but still tricky enough to provide many hours of fascinating sleuthing.

Written by an obvious Raymond Chandler fan, Infocom old-timer Stuart Galley, *Witness* is set in a ritzy suburb of 1938 Los Angeles. As Chief Detective of the Cabezaplana, California, Police Department, you've received an urgent telegram (included in the game package) from a well-known businessman in the international export business. The taxi drops you off in front of a house smaller than the Robner mansion in *Deadline.* With only a single floor and less expansive lawns, the place isn't as confusing and time-consuming to explore and map.

A quick rap and the door swings open to reveal the typically inscrutable Oriental butler. "Warm yellow light floods the living room" as Phong leads you to Linder, who insists on finishing his drink before getting down to business. All you can do at this point is cool your heels and focus your blinkers on his daughter Monica—a haughty society girl who won't give you the time of day, except to look down her nose as she calls you a shamus later the same evening. Linder finally steers you into his study and shows you an apparent death threat from a seedy character names Stiles. This gigolo, he says, was having an affair with his recently deceased wife (her handwritten suicide note is also part of the package). Linder assumes Stiles has gone off the deep end and blames him for her death. You won't get any more out of Linder, though, for he gets plugged right before your eyes (thus the title) and croaks on the spot.

Phong, Monica, and Stiles have motives for the murder, and with only three suspects you'd think this caper would be wrapped up in no time. But there's a lot of conflicting evidence and testimony to sort out. At least your assistant Duffy is still on the case to ferry clues back to the lab for analysis. And you have even more investigative techniques at your disposal than in *Deadline*. Now, you can compare objects for similarities that might link a suspect to the crime. Clues are strewn around this house like beer bottles on Fifth Avenue after the St. Patrick's Day Parade, and Duffy will either have to get a truck or make a lot of trips before the 12 hours you've got to solve the case elapse. You can accuse suspects of the killing and arrest one—Duffy shows up and clamps the cuffs around the character's wrists—but the program won't always cooperate. Without enough physical evidence, you'll have trouble getting a conviction. And in some cases, the conviction may be promptly overturned when new evidence comes to light.

Infocom's elaborate packaging includes a few clues of its own. A full-size reproduction of the local newspaper features a lead story about Linder and a charity ball at which he was to speak; his wife's obituary is also in the paper. (A mystery within a mystery: Did she really commit suicide?) There's also a book of instructions, the *National Detective Gazette*, with tips on the best ways to carry out a computerized investigation. A matchbook matching the one you find in the driveway at the start of the case is included, and may steer the cunning detective in the right direction.

Galley has armed you with a snub-nosed Colt, and packed his prose with authentic lingo from the thirties. Monica, whose bedroom walls are covered with Clark Gable posters, refers to the murder weapon as a "gat," and Duffy calls his handcuffs "nippers." The pistol is convenient when you get frustrated and decide to shoot an uncooperative suspect. (Eat lead, Monica!) It's advisable to save a game to a separate disk before murdering Monica or Phong to vent your anger. You can save up to seven cases in progress to disk. You'll also appreciate the Script feature, which provides a hardcopy of

everything displayed on the screen. If you're a new cop on the beat, consider *The Witness* your first assignment.

Compatibility: *Apple II, Apricot, Atari, Commodore 64, Commodore Plus/4, C/PM, Data General Desktop 100, Data General Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0, Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80 Model III, TRS-80 1000 PC, TRS-80 2000 PC*
Format: *Disk*
Manufacturer: *Infocom, Inc.*

Suspect

An absorbing work of interactive fiction, this detective story takes place at a Halloween costume party at the Ashford-Wellman estate in Maryland's Montgomery County. Veronica Ashford, a friend of sorts, invited you to attend, and your editor told you to try and get a story out of it for the newspaper. Little does he realize the headline will read "Reporter Arrested For Murder."

Like the rest of the blue bloods in her social circle, Veronica deplores the way the suburbs are encroaching on the neighborhood. They've even formed a loose coalition to persuade landowners not to sell out to developers who might replace the ritzy mansions with rows of townhouses. Incongruously, two real estate men, Bill Cochrane and Samuel Ostmann, were invited to the party. In the ballroom, where the party is already in full swing, complete with a live band and a generous bartender, you must chat with each of the guests to find out who hides behind the extravagant costumes. There's an African explorer, a werewolf, an astronaut . . . and you're dressed as a cowboy.

Veronica immediately spills a Singapore Sling on her white dress and dashes off to remove the stain. Each turn consumes a minute (the story begins at 9:00 p.m.), and you can spend the next two hours just socializing and wondering when she'll return. Then Sergeant Duffy appears and holds you with an "iron grip" until an anonymous detective arrests you for killing her. A paragraph

explains that the lariat and a bullet from your costume were found near the body. Though convicted, you're ultimately freed after Duffy and the detective conduct a more thorough investigation.

So you restart the game and start looking for the scene of the crime, determined to solve it before Duffy arrests you again. After all, you're a reporter and smell a Pulitzer Prize–winning story. Be sure to bring along plenty of paper, for the sprawling house is much larger than the one in *The Witness* and even bigger than the Robner mansion in *Deadline*. One convenient feature has been added: You can type "go to bar" or any other location, eliminating the need to constantly refer to the map when moving around. The next location's name appears along with anything that just happened, and you merely press C to continue moving until you reach the bar. You may enter another command if you change your mind.

The emphasis here is on the characters, interacting with them and trying to figure out what's going on. There are plenty of people to watch. You've got Michael (Veronica's husband), George Smythe (the butler), Colonel Marston (adminstrator of Veronica's trust fund), Richard (Veronica's younger brother), and Senator Asher. Then there's Alicia, Linda . . . even *Deadline* didn't get this crowded! And who is the mysterious guest in the devil suit? As in *Deadline* and *Cutthroats,* you'll be told the locations and movements of everyone in the same room. Something is always happening, and it helps to pay close attention all the time.

You'll find more motives than clues strewn about the landscape. Richard stands to inherit the trust fund with Veronica dead, and Cochrane (one of the developers, remember?) now has a chance to buy the house. Yes, it turns out she *was* planning to sell the estate and move upstate. And just like the Robner will, the contract hadn't been signed. Snoopy detectives will soon find this and other incriminating documents without much trouble. The mind grinder is piecing the elements together to figure out who killed Veronica—and, of course, finding enough evidence to convince the detective that you didn't do it.

This requires finding evidence supporting your contention that someone else did. Incriminating papers

and other things may be shown to the other characters in hopes of eliciting a reaction that will lead to more evidence, which can then be given to the detective. Even when you think you know whodunit, you can't arrest the culprit but must ask the detective to do so. He won't comply unless you've shown him enough evidence. If an arrest is made, you'll quickly read a paragraph describing the results. Alternative endings are possible, as in *Deadline*.

Duffy will analyze objects and dust for fingerprints as he does in *Deadline*, but in this game you must first ask the detective to do it. He dispatches Duffy to the lab with the object, and Duffy informs you of the results a few turns later. The cop isn't particularly bright. You can remove the lariat, the key piece of evidence against you, before he arrives. Drop it on the floor and the detective walks past it without blinking, though he's already examined the body and knows she was strangled. Hide it, though, and this suspicious act will be brought up in court and used against you.

The game recognizes more than 700 words, but it seemed to falter in an atypical manner at least once. There's a red-velvet ribbon that prevents guests from going upstairs. Type "jump ribbon" and you'll be told to "Please try rephrasing that." Infocom's parser usually points out the problem with a flawed command, naming a word that's not in the vocabulary, for example. Even so, it's still state-of-the-parser for the industry.

Humorous touches abound. Lebling, who wrote *Starcross* and coauthored the mainframe *Zork,* the *Zork* trilogy, and *Enchanter,* managed to sneak in a grue and a reference to the Frobozz Magic Company. Beyond a scribbled note on a genuine business card from Cochrane's real estate company, the documentation does not appear to conceal any solid clues. A page torn from a local magazine offers an article quoting Cochrane about the local real estate situation and how the rich are gradually moving out, plus some biographical information on Veronica and Colonel Marston. You also get a formal invitation to the party and the receipt for your costume. A clever instruction manual satirizes

Emily Post–type books and is appropriately called *Murder and Modern Manners.*

As far as difficulty goes, Infocom rates the game as Advanced, one step below their Expert rating for *Deadline. Suspect* is still a tough game and can be maddening when you run out of time. (You can buy an extra hour or so by locating a particular piece of evidence, at least.) It's not your typical "look rock" and "climb rope" adventure, and anyone who hasn't finished *Witness* would be getting in over their heads here. *Suspect* works as true interactive fiction, too. The characters are convincing, and the suspense intensifies each time the detective or Duffy approaches you when there are only moments remaining, and when you're sure you're onto a hot lead.

Compatibility: *Apple II, Apricot, Atari, Commodore 64, Commodore Plus/4, C/PM, Data General Desktop 100, Data General Book, DEC Rainbow, Epson QX-10, HP 110, HP 150, IBM PC, IBM PC AT, IBM PCjr, Kaypro II, Macintosh, Mindset, MS-DOS 2.0, Osborne, TI Professional, TI-99/4A, TRS-80 Color Computer, TRS-80 Model III, TRS-80 1000 PC, TRS-80 2000 PC*
Format: *Disk*
Manufacturer: *Infocom, Inc.*

Murder on the Zinderneuf

Murder mysteries like *Deadline* and *The Witness* are incredible achievements. But they're not for everybody. These all-text games are a lot like reading a book, and some people play computer games when they're not in the mood for reading books. Many mystery lovers want something a little less complex. If you find it tough to follow the plot of old "Kojak" reruns, much less plod through *Deadline* for three months searching for clues, *Murder on the Zinderneuf* may be just what you're looking for. It's the first game with user-friendly murders.

As in the Infocom games, you can move around and shadow suspects, search for clues, interrogate suspects, and make accusations. But instead of typing your commands on the keyboard, all these procedures can be

carried out with a joystick and fire button. And instead of a screenful of words, you have a screenful of colorful graphics.

But *Murder on the Zinderneuf* isn't *Deadline* with a joystick. The *Zinderneuf,* a fictitious zeppelin flying from London to New York in 1936, has 16 passengers on it. Instead of a single crime with one victim and one murderer, every time you play you get a different game—a new passenger gets murdered and another one of them did it.

You also have your choice of playing one of eight different detectives—from the scientific Humboldt Hause ("a bit of carpet fuzz speaks volumes") to the macho Harry Hacksaw ("released from the police force when a kidnapper died under 'intense interrogation' "). Obviously, the characters are parodies of well-known sleuths. It's not too hard to figure out who *Zinderneuf's* Lieutenant Cinncinnato, Miss Agatha Marbles, or Chief Inspector Klutzeau represent.

The suspects are also a colorful collection of celebrity parodies from the thirties, such as Buck Battle (Johnny Weissmuller), Veronica Marlowe (Jean Harlow), and Sally Rose (Sally Rand). Since most of the screen space is devoted to graphics, you must learn the personalities of these potential killers by reading a 13-page instruction booklet that comes with the game.

You don't have to draw any maps or charts to solve *Zinderneuf.* As you move your stick-figure detective around the deck, the screen scrolls vertically, providing an overhead floor plan of the airship. All the suspects' staterooms are visible, and you'll see the suspects themselves strolling around the dirigible. In fact, these folks spend more time in each other's rooms than the passengers on a good "Love Boat" episode. As you walk around the rooms, you'll stumble upon various clues, like a tuft of hair or an earring. As in all mysteries, some clues are significant, others were just planted to throw you off the track. Frankly, we felt that the game would be more exciting if there were more clues to find and a few "smoking pistols."

To interrogate a suspect, you merely bump your detective into him or her. A line of text at the top of the

screen identifies the suspect. You then use the joystick to select the person you want to ask the suspect about, and the response is displayed on the screen. You can also choose your manner of questioning (forceful, seductive, friendly, polite, and so on). You'll get different answers depending on the approach you use, anything from "He was a blackmailer" to "Buzz off!" You can accuse any suspect of the murder at any time, but it won't stick unless you've picked up enough evidence for a conviction. Interrogation is much more restricted than it is in the Infocom games.

Perhaps the biggest difference between *Zinderneuf* and the all-text murder games is the ending—after 36 minutes the game is over, whether you solve the crime or not. When the *Zinderneuf* docks in New York, you're told who the killer is and you get a rating for your performance as a detective. You also get to see the murderer's confession, which is usually a vague statement such as, "It was an accident. He found me rifling his jewelry case. There was a struggle . . ." Unfortunately, there's no explanation given about how the clues tie in with the killer.

People who love *Deadline* and *The Witness* will probably hate *Murder on the Zinderneuf,* which lacks the depth and imagination of the all-text games. However, *Zinderneuf* provides murder-mystery lovers with a *Reader's Digest*–like condensed alternative to Infocom's often overwhelming all-text mysteries.

Compatibility: Apple II, Atari, Commodore 64, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Electronic Arts

Murder by the Dozen

M urder by the Dozen is a little bit more sophisticated than *Zinderneuf,* but not quite as challenging as Infocom's popular all-text mysteries. It's interesting to see how three companies approached the idea of a murder-mystery game in three totally different ways.

Micropolis is called "the city of friendly people." But

you'd never know it. Twelve of them have recently been bumped off. People in the town seem to have a tendency to get run over, drown in swimming pools, have their cars explode when they turn on the ignition, and get beaten to death in hospitals with their own bedpans. Great town, Micropolis. Fortunately, you don't have to look at any of this—it's an all-text game. But it's nothing like the Infocom all-text games.

As the title suggests, there are 12 murders all together, and each one is a game in itself. The game comes with a short instruction manual, a clue book, and a pamphlet which gives the solutions to all the murders. To insure that you don't "accidentally" peek, it's necessary to put a piece of red film over the solutions in order to read them. You can play the game by yourself or with as many as three other detectives, in competition or as teams.

Murder by the Dozen begins with a description of the crime. In the second case, for instance, a suspected drug dealer named Wally Snark has been found strangled, hanging from the rings in the Micropolis high-school gym. As the detective called in on the case, you can search the gym, interview the gym teacher who found the body, and see the results of the autopsy. But instead of typing your actions and questions into the keyboard, the screen provides you with a list of people to interview or things to do.

Say, you want to question the doctor who did the autopsy. You would pick number 3, for Dr. Coswell. The numbers 244, 99, and 362 will appear on the screen—you can use the clue book to see what those numbers represent. Number 244, for instance, reads, "Everyone knew Snark was pushing poisoned cocaine, we just couldn't prove it." This is the way you compile evidence to solve the crime. When you think you have enough evidence to make an accusation, it's time to take out the red filter and see if you were right. You don't receive any points in *Murder by the Dozen,* but you're rated as a sleuth—anywhere from Rotten to Professional Detective. And you're given a complete explanation about how the clues fit together to lead to the correct solution.

It's a different experience from the other murder games. The program leads you in the right direction. If you interview the gym teacher in the Wally Snark case, she'll tell you that one of her students died from a heroin overdose two weeks ago. Inspecting the gym will reveal the words, "Crucify pushers, not our kids," spray-painted on the floor. Obviously, these two pieces of information will lead you to question the dead girl's parents (who didn't do it). If you're persistent, you'll eventually piece together all the clues and solve the crime.
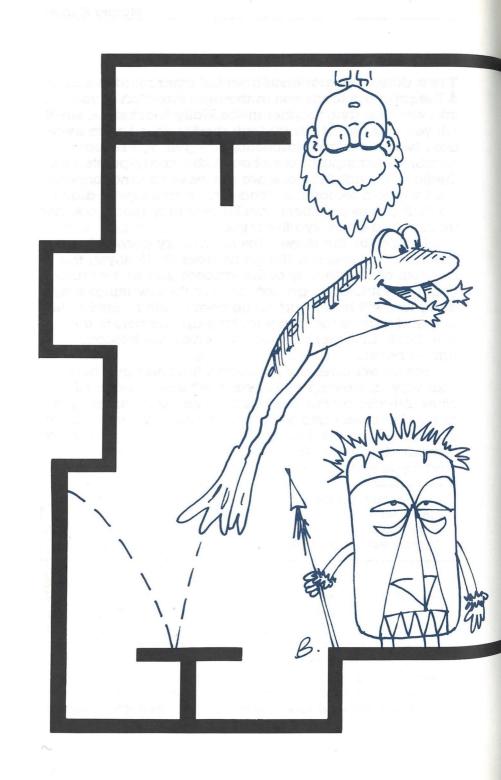
Murder by the Dozen, like all mystery games, has a specialized audience. The game doesn't allow you the freedom or spontaneity of the Infocom games, because you are restricted to go and do only the few things the designers will let you do. Some people will resent having to spend most of the game looking up numbers in the clue book. Divergent thinkers will enjoy the Infocom games better.
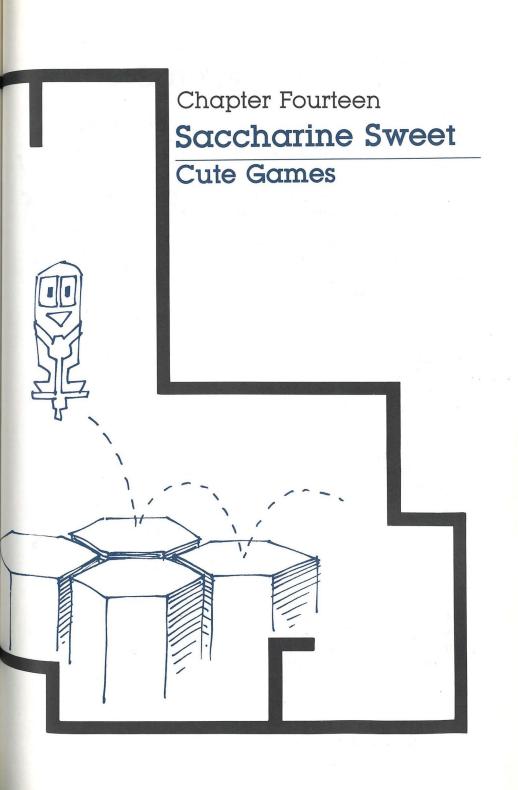
But there's a reason for putting the clues in a book. That way, competing detectives can't look at each other's clues. *Murder by the Dozen* is most fun as a multiplayer game. But even solitary amateur sleuths who find the Infocom games a bit heavy will enjoy following the more obvious clues here. You don't feel like you're reading a novel; you feel like you're playing a board game.

Compatibility: Apple II, Commodore 64, IBM PC, IBM PCjr, Macintosh
Format: Disk
Manufacturer: CBS Software

Chapter Fourteen
Saccharine Sweet
Cute Games

Cute Games

Computers and computer games have been almost entirely dominated by men. Prior to *Pac-Man*, computer games meant submarine chases, tank games, medieval battles, space shootouts, racing car contests, and other macho adventures. Women didn't come near computer games, and little effort was made to attract them.

When *Pac-Man* arrived, its phenomenal popularity was partially due to the fact that women were storming into the arcades for the first time. Places like beauty salons and health clubs started installing the arcade machine. The game was nonviolent (to an extent), colorful, addicting, and easy for a beginner to learn. More than anything else, *Pac-Man* was cute.

Sexist though the thought may be, manufacturers were quick to pick up on this trend and unleashed a deluge of adorable games with cuddly characters and charming music. We had fried eggs with legs running around. Clowns riding unicycles. Pigs throwing meat bombs. Animals of every species hopping and skipping to and fro. Most of the games were awful.

The wave of cute games ended—let's give thanks—and the *Pac-Man* machines were hauled out of the beauty parlors. However, a number of the games in this category were good games with terrific graphics, regardless of how cute they were. These are the games in this chapter. Computer games will probably never be as cute as they were in the post–*Pac-Man* era. But as the computer enters the American home, games are being developed that everyone will enjoy.

Drol

While you might think that *Drol* is one of the worst titles in the history of computer gaming, it fits the game. The word *droll* means "amusing in an odd way," and that's exactly what *Drol* is. It's a weird dream world created by someone named Ark Beng. Everything about this game, in fact, is weird.

Get this: An evil witch doctor has lured a little boy, a little girl, their pet lizard and crocodile, and their mother into his underground fantasy civilization. The screen scrolls left and right through four floors of his kingdom. The two kids are walking around like spaced-out zombies, and Mom is tied up in the basement. There's no mention of a father; evidently he got out when the going got tough. Your job is to rescue these unfortunates, and you're armed with a trance-resistant, antigravity suit and a gun that shoots something called "luminous reality pellets."

Drol features some of the most stunning graphics and animation we've seen in any computer game. You feel like you're watching a cartoon. Starting with this game, the stick figures we're used to should be a thing of the past. These characters are three-dimensionally rounded and incredibly detailed. The little boy wears a beanie with the propeller spinning around. The little girl has long red hair tied in a bow. She carries a balloon that reflects light. Its little string waves in the wind. The pets float by wearing jet packs. Strange, otherworldly music plays throughout the game.

That's not the half of it. The enemies really knock your eyes back into their sockets. The witch doctor has conjured up a very strange juxtaposition of adversaries, including bouncing sea horses that spit rocks, scorpions, magnets that stick, snakes, spinning hatchets, arrows, every form of knife you can imagine, even indestructible vacuum cleaners (it's about time somebody made one that won't break). A live turkey flies by occasionally, and if you shoot it repeatedly, it turns into a roast turkey on a platter (worth 500 points). The witch doctor himself pops out of nowhere on the third level, and just before you rescue Mom you'll probably get attacked by a killer Venus's-flytrap plant. All of these objects are rendered clearly.

Unlike most games, you don't have to go looking in the instructions to find out what you're shooting at. Your shots, by the way, aren't the standard computer game laser fire—they're rounded, colored pellets that look like little gum balls. And when you get hit, your body explodes into dozens of tiny balls that bounce around crazily.

Drol is so blindingly beautiful to look at you may forget there's a game somewhere in there. It moves slowly, but there's plenty of action. Trap doors in the floors allow you to move up and down, and it's necessary to keep an eye on all the floors in case one of the hostages strolls by. A radar scope at the top of the screen gives the broad picture of the underground world, but it's easy to get killed while you're glancing at it. The best strategy is to fire continuously and watch the edges for friends and enemies. After you rescue the two kids and their pets (by touching them), it will feel like everything is flying at you at once. If you successfully free Mom, you're treated to a cartoon intermission of the three hostages being reunited.

Drol is a good game, but the graphics steal the show. Scenes like these show us what computers are capable of doing and point toward the games of tomorrow.

Compatibility: *Apple II, Atari, Commodore 64*
Format: *Disk*
Manufacturer: *Brøderbund Software, Inc.*

Frogger

F *rogger* is by far the cutest of the cute games, and the most nauseating for people who *hate* cute games. Hardcore computer game junkies will find helping frogs cross the street a task unworthy of their attention. But for beginners unaccustomed to manipulating a joystick, *Frogger* is the perfect introduction.

It's the simplest game in the world. You're a frog at the bottom of the screen, and your lily pads are at the top. In between are a four-lane highway and a river. The highway bustles with moving cars, trucks, and bulldozers, none of which brake for amphibians. The river teems with floating logs, snakes, crocodiles, otters, and

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diving turtles. You can jump on the logs (any time), the turtles (until they dive), the crocodiles (but not on their heads), and the otters (only if you want to die). All these objects move horizontally in both directions and at varying speeds. There's also a wandering lady frog who hops around from time to time, and you get extra points if you jump on her and bring her home. There's a time limit of about 25 seconds to get each of your five frogs across the screen.

The arcade version of *Frogger* by Sega came out right after *Pac-Man* in 1981. It followed the *Pac-Man* formula perfectly: It's nonviolent (to attract a more diverse audience), easy to learn *(Pac-Man* and *Frogger* are two of the few games you can play with one hand), but difficult to master. Even though the game is ridiculously simple, since all screen movement is horizontal or vertical, it has become a smash hit and has been translated for just about every home computer system. *Frogger* has also been widely imitated and sometimes blatantly ripped-off.

The soundtrack of Frogger is very good, especially in the Commodore 64 version. As you play the game, you're treated to versions of "Yankee Doodle," "Old Mac-Donald Had a Farm," the distinctive *Frogger* theme, and several other bright and cheerful ditties. Admittedly, it does get a bit monotonous after a while, but the designers have kindly allowed us to turn the music off—and not by turning down the volume. If you hit the f5 key on the Commodore, the music disappears while other sounds in the game remain. These other sounds include the splash Froggy makes when he hits the water and the "nnnyeauuuu" that signals he got home safely. You also have the option of a fast-moving game or a slow-moving game, and the frog can be controlled with either a joystick or four keys on the keyboard.

The graphics may even surpass those in the arcade game. The diving turtles could be a little better, but the frogs, logs, cars, and crocodiles are colorful and crisp. You can even see the treads move on the bulldozer.

Computer game sophistication may have leap-frogged past *Frogger* in the last few years, but the basic

gameplay—moving vertically past horizontally moving objects—will always be fun. *Frogger* is a classic.

Compatibility: *Apple II, Atari computers, Atari VCS, Atari 5200, Coleco Adam, ColecoVision, Commodore 64, Commodore VIC-20, IBM PC, IBM PCjr, Macintosh, TI-99/4A*
Format: *Cartridge; Cassette (64); Disk (Atari, 64, IBM, Macintosh)*
Manufacturer: *Parker Brothers (Cartridges); Sierra On-Line, Inc. (Cartridge (Atari), Cassette, Disk)*

Preppie

G rounded in macho tradition, few computer games make people laugh. *Preppie*, however, is one game that's so ridicuous and silly you just can't help but burst into laughter.

The game is a parody of *Frogger*. Instead of controlling a frog, you control Wadsworth Overcash, a prepster who is anatomically correct right down to the tiny alligator on his shirt. Wadsworth, the story goes, had the world by the tail until he failed a freshman initiation ceremony. Now he's been banished to a golf course, where his task is to retrieve wayward golf balls. The golf balls, of course, have been sliced to the other side of the screen.

Like his amphibious predecessor, Wadsworth must cross a street and a river full of moving vehicles. The street, as you might guess, is a traffic jam of lawnmowers and bulldozers. The river is crowded with canoes that Wadsworth must hop on. You've got to move him around the screen, touch the golf balls, and bring them back, one at a time. If Wadsworth's Topsiders slip off the edge of a canoe, he falls into the drink and drowns. If he gets hit by a vehicle on land, he spreads out like a pancake across the ground, as if he'd been squashed by a steamroller.

P *reppie* is so ridiculously easy that you feel like an idiot as you make mistake after mistake. The first few levels don't pose any problem, but by the fourth level there's one golf ball across the road and two more across the river. Even if you maneuver your preppie perfectly,

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you may run out of time before the job is finished. And there's nothing more frustrating than seeing your last Wadsworth die while bringing that final golf ball home. As the levels progress, there are more golf balls to retrieve, everything moves faster, and logs, frogs, and giant alligators enter the scene. While Frogger hops when he moves, Wadsworth glides across the ground. He does leap in and out of the canoes, and there's a slight delay between the push of the joystick button and the jump. *Frogger* fanatics will soon get used to that.

The music and colorful graphics of *Preppie* add to the silliness. As you struggle to risk your life for golf balls, tunes like "Strolling Through the Park" and "Peg o' My Heart" repeat endlessly. The game is addictive fun, but it became a hit mainly as a novelty game that capitalized on the success of *Frogger* and the runaway best-seller, *The Preppie Handbook.* If you own *Frogger,* you don't need *Preppie,* and vice versa.

Preppie creator Russ Wetmore also designed a sequel game, *Preppie II.* Wadsworth Overcash returns, this time forced to paint a series of floors madras pink, lavender, and chartreuse in order to become a part of the Delta Skelter Omega fraternity. This one is a maze game. As you move Wadsworth around, sections of the maze are painted. He has three to paint: two with giant frogs and ladybuglike revolving doors, the other with lawnmowers and trucks in a maze that resembles the popular game *Jawbreaker.* Interestingly, Wadsworth doesn't have to finish one maze before proceeding to the next. You can stroll from maze to maze anytime you like. And while *Preppie* forced you to start all over again when Wadsworth was killed, the sequel gives you credit for the painting progress you made up to that point.

Preppie II doesn't have the same spirit as the original parody. While it's conceivable that Wadsworth Overcash might lower himself to shagging a few golf balls, any self-respecting prepster would pay someone to paint floors for him.

Compatibility: Apple II, Atari
Format: Cassette, Disk
Manufacturer: Adventure International

Q*Bert

Just as *Space Invaders* introduced the shooting-aliens concept and *Pac-Man* the eating-dots-in-a-maze idea, *Q*Bert* gave us the hopping-around-and-changing-things game. Like both *Space Invaders* and *Pac-Man*, it was a popular arcade game and it spawned more than a dozen *Q*Bert*-clone imitation games for home computers.

Q*Bert is a character tailor-made to have his face plastered on lunch pails and to be turned into a Saturday morning television show. He's shaped something like a large nose, and he looks like a cross between a kiwi and an anteater. His entire existence is spent on a pyramid made of 28 colored cubes *(Cubert,* get it?) and his means of transportation is hopping diagonally from cube to cube. When you use your joystick to make Q*Bert leap onto a cube, it changes the color of the top of that cube. The object of the game is to change the color of every cube to the target color, thus completing a level. There are nine levels, four rounds in each. Some players have been known to start hallucinating after staring at the multicolor pyramid for long periods of time.

It sounds pretty easy, but like all good computer games, there are clever adversaries. Ugg and Wrong-way—guys who float around unpredictably to put Q*Bert out of commission; Sam, who changes the cubes you've hopped on back to their original colors; colored balls that fly out from the top of the pyramid and squash Q*Bert; and the most devious of all, a purple ball that hatches into Coily, a hopping snake who chases Q*Bert. This guy may be the most harassed character in the world of computer games.

In addition to his wits, Q*Bert has two weapons, both defensive. The first, a magic green ball, freezes all the enemies on the screen for a few seconds when you touch it. The second weapon is the use of circular multicolor discs hanging in space just off the sides of the pyramid. When Coily is in hot pursuit, Q*Bert can hop off the pyramid onto a disc; it will fly him safely to the top of the pyramid. Coily, not the brightest of villains, leaps off the pyramid to his death. Q*Bert will also die if he jumps off without a flying disc, and many first-time players commit character suicide over and over, just for the fun of it.

The game gets a little more complicated after the first level. On the second level, the cubes change color when Q*Bert hops on them, but he must hop on each cube one more time to change each to the target color. In the third level, he only has to hop on each cube once to change it to the target color, but if he hops on it again, the cube reverts to its original color. You don't even want to hear about the fourth level. These changes in the game from level to level keep the challenge interesting.

The one- or two-player home computer versions of this complicated game are very good, but as is usually the case, they don't come close to the graphics or sound of the arcade game. None of the characters has the personality that gave the arcade game such charm, least of all Q*Bert himself. Here, he's got a weird hook for a nose and see-through eyeballs like Little Orphan Annie. When he hops around, you can see the pyramid right through his head. The biggest difference is in the game's sound. In the arcade game, Q*Bert had a terrific synthesized language of grunts, mumblings, and curses that sounded like Cousin It on "The Addams Family." In the home game, he's limited to the usual electronic squawks. It's still a cute game—just not as cute.

The problem is that we saw the arcade game first. If there was nothing to compare it to, the home versions of Q*Bert would be spectacular. The graphics are very well done, the joystick control is good, and the gameplay is addictive fun. In fact, many people who dismissed the game at first as just another cute game have come back to it because Q*Bert is an excellent test of strategic thinking. Furthermore, since you don't shoot or even eat anyone, it's one of the few nonviolent games—unless, of course, you consider luring snakes to their deaths to be violent.

Compatibility: Atari computers, Atari VCS, Atari 5200, Coleco Adam, ColecoVision, Commodore 64, Commodore VIC-20, TI-99/4A (Note: Some of the characters are missing from certain versions.)
Format: Cartridge
Manufacturer: Parker Brothers

Pogo Joe

Most game clones are just cheap copies of ideas someone wished they'd thought of themselves. Sometimes, however, an original concept can be added to or slightly twisted to take the idea a bit further. Q*Bert led to a rash of hop-around-and-change-things spinoffs, and one of them outcloned the original. It's kind of sad, but *Pogo Joe* is even better than Q*Bert.

Joe is a cute little guy who hops around like Q*Bert, but uses a pogo stick instead of his feet. The field is made up of geometric cylinder configurations, and each time Pogo Joe hops on one, he changes its color. Joe can clear two cylinders in one jump if you hit the fire button and move the joystick at the same time. And unlike Q*Bert, Pogo Joe can't hop off the screen to his death. If he dies, he dies on the cylinders. There are no flying discs in the game, but there are a few special cylinders to jump on. When you leap on a black cylinder, it transports you to another part of the screen, almost like a pneumatic tube. You can land on a green cylinder, called the flash tube, to "smart bomb" any enemies into game oblivion.

While Q*Bert was confined to his pyramid shape in all 36 rounds, Pogo Joe has a completely different pattern of cylinders for each round—and there are 64 rounds. Some of the patterns are hearts, stars, or familiar shapes, though most are just random snowflake patterns. In one of the rounds, the cylinders disappear one by one when Joe jumps on them. In another, they're invisible at the start, so you don't know what the pattern looks like until you hop on all the cylinders.

One simple device that really adds to the game is that each of the 64 rounds has a name. Not just any name, but weird names like Tennis Antibody, Lumpy Gravy, Fish Head, Ode to Zippy, Cheeze Food, and If U Cn Rd Ths U R Wrd. Some are silly, some are funny, and some are inside jokes ("Here's Another Clue for You All" refers to an old Beatle song, and "Not Craw, Craw!" refers to a villain on the "Get Smart" television series). The names not only identify the rounds, but they make you want to advance to the next one just to see what it's called.

Pogo Joe's enemies are so spectacular that they make Q*Bert's crew look like a convention of insurance salespeople. There are ten different types of toy monsters, all of which hatch from eggs. The yellow ones run away when you chase them, the purple ones come after you, and the red top with eyes spinning around turns all the cylinders you've hopped on back to original colors. These creatures are colorful, cartoony, and reminiscent of the Blue Meanies from *Yellow Submarine*. Their graphics are virtually indistinguishable from arcade quality. The animation is terrific—these monsters don't hop back and forth like statues, they actually swivel in midair! Before you take them into your heart, however, remember that they kill Pogo Joe when they touch him. (But you can kill them first if you land on them before they hatch.)

A few other features add to the fun for one or two players. There's a bouncy musical soundtrack that sticks in your head for weeks. You can start the game on any of the screens and even go on a screen tour to see what they all look like. You can vary the speed of Pogo Joe and the speed of all the toy monsters, which can change the game from a strategic pattern contest to a frenetic free-for-all. These speeds can even be altered in the middle of the game. You can restrict the monsters to jumping one cylinder at a time or let them make double jumps. And for *Pogo Joe* champs, there's a high-score board with the game's designer, William F. Denman, Jr., at the top of the list. He topped out at an astounding 207,900 points.
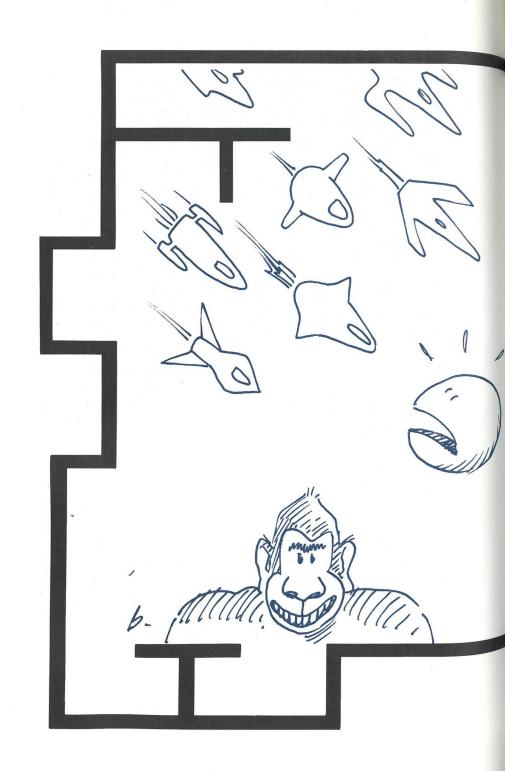
Pogo Joe is an addicting, whimsical, challenging cousin of *Q*Bert*. Like all good cute games, there's an outstanding game in there, not just adorable characters.
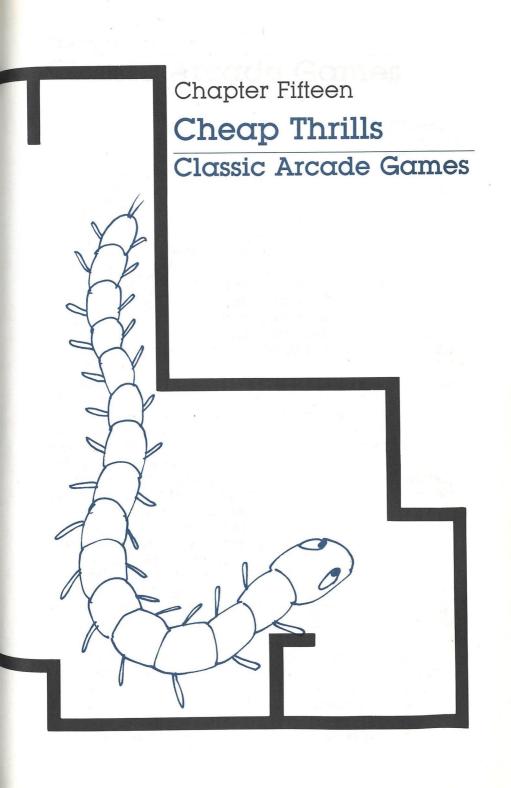

Compatibility: *Apple II, Atari, Commodore 64, IBM PCjr*
Format: *Cassette (Atari, 64), Disk (all)*
Manufacturer: *Screenplay*

Chapter Fifteen

Cheap Thrills

Classic Arcade Games

Classic Arcade Games

Arcade games take a different approach from computer games meant to be played at home. Arcade games are designed to be a cheap thrill. You drop your quarter (or fifty cents) into the slot and you're assaulted with excitement for 90 seconds. If it lasts any longer than that, the machine doesn't make enough money. Arcade games are designed to attract you, hook you, bore you before you become too proficient, and make you move on. They don't offer much intellectual stimulation, nor do they intend to.

Home games, on the other hand, are expensive and must give the player his or her money's worth. Most good home games have depth and unfold slowly, so you can still enjoy them a month or even a year later. When you spend $25 or $35 on a game, you don't want it to become boring after the first weekend.

But strangely, one of the few good bets in computer gaming is that a hit arcade game will sell well when it's translated to home computers. While games based on smash hit movies like *E.T.* and *Raiders of the Lost Ark* have been bombs, everybody wants to bring the arcade game home. Apparently, we need those 90-second mindless thrills around the house now and then.

Most arcade games are terrible. Some are good. A few become hits. Every few years a game comes along that sweeps the electronic world. Those are the games in this chapter.

As an added note, the coin-op industry seems to have gone from the Fortune 500 to the poorhouse in recent years. But people who say the arcades are dead should remember that in the past technological innovations entered the arcades first, then, a year or two later, the home market. Arcades will continue to provide

inexpensive entertainment using whatever technology is available—from flippers to microprocessors to lasers.

Space Invaders

When I retire I'm going to fill one room with nothing but pinball machines and electronic games and just sit there in the dark playing Space Invaders.

Walter Cronkite

More than any other game, *Space Invaders* contributed to creating the entire computer game industry. Though *Pong* was a sensation in 1972, the simplicity which made it so inviting also prevented it from becoming anything more than a quick fad. But after *Star Wars* ignited a renewed interest in science fiction in 1977, the stage was set for a game that would let the guy on the street blow away aliens, just as Luke Skywalker had done.

Space Invaders was created by a Japanese company called Taito, and its thump, thump, thump marched its way across that country—so much so, in fact, that it caused a national shortage of hundred-yen coins. The arcade game was also a huge success in the United States. We say it helped create the computer game industry because the Atari VCS (Video Computer System) was a failure until *Space Invaders* was made available. Then every kid in America wanted an Atari so he or she could play the game at home. About 20 million game systems were sold. Although that simple machine is now obsolete, it did pave the way for many of those people to move up to inexpensive home computers.

It may seem primitive and even tame compared with today's games, but *Space Invaders* caused an adrenaline rush that addicted many of us to computer games. The game was tense. There you are, an insignificant cannon on the bottom of the screen, facing a relentless army of weird-looking creatures. There are 55 of them against one of you. They're dropping bombs and slowly but steadily moving downscreen to crush you. The noise of their marching sounds suspiciously like Nazi jackboots, and as you pick them off, the survivors move

faster and faster. You can almost feel your blood pressure rise. In your first few games, you're concentrating so hard on the aliens that you don't even notice the yellow UFO crossing overhead every 25 seconds. But soon you're aggressively going after them for big points.

Even though playing *Space Invaders* became synonymous with complaints that our nation's youth were turning into brain-dead cretins, the game was successful because it allowed us to develop intricate strategies. Clever players learned that the key to high scores was not to kill all the aliens as quickly as possible, but to keep them on the screen moving slowly while waiting to shoot the UFOs. This involved clearing out two columns of aliens to prevent the entire group from reaching the sides of the screen too quickly. Some genius even figured out that you receive the maximum 300 points for hitting a UFO only if you hit it on your twenty-third shot and every fifteenth shot thereafter. You can imagine the experimentation that went into discovering that phenomenon. The existence of shields that disintegrate when hit from above or below led to even more possible strategies.

Like most arcade translations, the home versions of *Space Invaders* don't quite match the intensity of the original. A quarter isn't much money, but there's more at stake than when you just have to hit a reset button to begin a new game. The home games, however, do provide some options not found in the arcade game—shields that move back and forth, bombs that zigzag instead of just falling vertically, and aliens that are invisible until you hit one. The game can become truly terrifying. It's no wonder that hundreds of youths became afflicted with the dreaded malady that the *New England Journal of Medicine* dubbed "*Space Invaders* Wrist."

Compatibility: *Atari computers, Atari VCS, Atari 5200*
Format: *Cartridge*
Manufacturer: *Atari Corporation*

Pac-Man

The *Pac-Man* phenomenon has been beaten to death. There's no need for us to trot out statistics on how many quarters were dropped into its slots in 1981, and nobody needs another in-depth sociological explanation about how it was the first videogame that women liked to play (especially since we've mentioned it more than once in this book already). Since every woman, man, and child in the country has probably gobbled at least a few ghosts, there's no reason for us to explain how to play. Suffice it to say that *Pac-Man* did for videogames what Babe Ruth did for baseball.

What matters is the game itself. *Pac-Man* is what you expect a revolutionary game to be: an original concept when it came out, yet simple enough to learn that anyone could quickly pick it up. It featured innovative, colorful graphics and sound. Most of all, the gameplay was so addicting and seductive that it always gave you the feeling that you could improve on your last score. The game was a fad, of course. But it wasn't another Pet Rock. *Pac-Man* is fun. Even if you were totally *Pac-Man*ned out years ago, it's still fun to go back and give the game a shot today.

What is it that makes the game so good? There were maze games that flopped before *Pac-Man* clicked, and a game needs more than just cuteness to trigger such national fervor. Part of it had to do with the idea of eating things on the screen, which had never been done before. Those 240 dots in the maze give the player almost constant reinforcement as he or she moves on the screen. More important, that's the smallest reward in the game. The others—eating ghosts, eating fruit, clearing the board, and watching the cartoony intermissions provide so many incentives that the game just reaches out and grabs you. It doesn't demand much and gives back a lot.

Videogames before *Pac-Man* put you in a world where you were inferior. In *Space Invaders* and the like, the hordes of aliens were more powerful than you. They seemed to dance above, symbolically spitting on

you and everything you believed in. *Pac-Man* was the first game that allowed *you* to turn the tables on your foes, simply by eating the magic power pills. For just a few moments, the player becomes more powerful and can chase the enemy like it's a hunted animal. This feeling of power and excitement made the game, just as Superman whipping off his glasses or Popeye grabbing for the spinach made those characters. The idea of turning the tables became a standard feature of games that followed *Pac-Man.*

Pac-Man also has a subtlety, one that makes players come back, the same way moviegoers go to a film over and over, and pick up something new each time. *Pac-Man's* ghosts, players discover, have different personalities. The red one moves faster than all the others and has been programmed to stay on your tail. The pink one, on the other hand, moves in the direction you're heading and tries to cut you off. The orange one is almost cowardly—sometimes you can chase him, even without eating a power pill. All the ghosts have shifty little eyes that observant players can use to predict their next change in direction. When it was discovered that all the ghosts follow predetermined paths around the maze, hundreds of players led the charge to develop unbeatable patterns for the game. It was *Pac-Man's* undoing (See *Ms. Pac-Man* in Chapter 6). The game had the simplicity to attract beginning players and the complexity to intrigue experts.

The man who created *Pac-Man,* a 29-year-old Japanese programmer named Toro Iwatani, never saw much of the millions of dollars that fell in the slots. He's just another employee at Namco, the company that brought us *Pole Position, Galaxian,* and many other classic arcade games.

We understand that he *did* receive a promotion, though.

Compatibility: Apple II, Atari, Commodore 64, Commodore VIC-20, IBM PC, TI-99/4A
Format: Cartridge, Disk (Apple and IBM)
Manufacturer: Atari Corporation

Donkey Kong

Arcade games which originate in Japan seem to have
a fundamentally different personality from American
games. While *Robotron, Defender,* and many other
American games give the player the freedom to roam
all over the playfield, Japanese games like *Space Invad-
ers, Pac-Man,* and *Donkey Kong* restrict the player to spe-
cific boundaries. Perhaps this difference reflects the
personalities of the two nations—Americans are free to
become president or end up in the gutter, while Japa-
nese society encourages conformity and finding the one
true path to happiness.

The true path to *Donkey Kong* happiness is up the
girders and ladders to the top of the screen. That's where
your girlfriend is being held hostage by the giant ape, as
Fay Wray was held by King Kong in the film classic. But
this Kong, who has nothing to do with donkeys, lacks the
sensitivity of the original ape. He brutally chucks down
barrels to prevent you from rescuing your sweetheart.
Donkey Kong wasn't the first climbing game, and it
wasn't even the first arcade game based on King Kong
(that honor belongs to *Crazy Climber*). But by becoming
a national semiphenomenon as the *Pac-Man* fad cooled
down, it made ladder games popular.

Donkey Kong came out right about the time pro-
grammers found ways to put a realistic image of a hu-
man being on the screen. Your character, Mario, a
courageous Italian carpenter with overalls and a little
moustache, is remarkably lifelike. He even swings his
arms back and forth as he walks. The game looks like a
cartoon. Mario doesn't have a lot of options—he can
move left and right, climb ladders, and jump to leap
over barrels when you hit the fire button. Two hammers
dangle in the air around the screen. When Mario leaps
and grabs one, he has ten seconds to bash the oncoming
barrels. But he can't climb a ladder when holding the
hammer, and he can still get nailed if a barrel reaches
him when the hammer is on the upswing.

Before *Donkey Kong,* most games simply moved faster
after the first level was conquered. That does make a
game more challenging, but it doesn't give you anything

to look forward to. Even the best players know they eventually have to lose when the game gets too fast for them. *Donkey Kong* was one of the first games to hit you with new screens each level. It's like getting more game for the money. *Donkey Kong* has four screens (four structures) in all. After the girder screen comes the rivets screen, where Mario must walk past eight rivets that hold Kong's structure up. The rivets disappear when he crosses them, and when Mario removes all eight, Kong comes crashing to the ground. Prizes, such as your girl's hat, purse, and umbrella, are scattered about, and you get extra points for picking them up. The third screen is the elevators scene, in which Mario must leap on and off elevators and avoid flying springs. The last screen forces Mario to contend with conveyor belts and moving buckets of sand. In every case, Kong grabs the girl and carries her up to the next screen just before Mario reaches her. A heart appears between Mario and the girl, but it breaks as she's snatched away. In *Donkey Kong*, the fun lies in the struggle, not the triumph.

Donkey Kong is a strategy game. A bonus-point clock is counting down on every screen. You must decide not only *how* to reach the top, but also whether your time is better spent bashing barrels or racing to grab those bonus points. To make matters more difficult, if you make a mistake at any point on any screen, you have to restart that screen from its beginning. The home versions of this arcade classic look very much like the original, but the play action varies. The cartridge for the Atari computer, for example, is faster than the Commodore 64 version, and Mario can sometimes hit his head on the girder above him. In general, if you liked the arcade game, you won't be disappointed.

Compatibility: *Apple II, Atari computers, Atari VCS, Coleco Adam, ColecoVision, Commodore 64, Commodore VIC-20, IBM PC, TI-99/4A*
Format: *Cartridge, Disk (Apple and IBM)*
Manufacturer: *Atari Corporation; Coleco Industries, Inc. (Adam, Atari VCS, ColecoVision)*

Centipede

If computer games allow us to safely act out our fears and fantasies, *Centipede* may be the most cathartic game ever. More than space aliens or even nuclear war, there's one thing almost all of us fear—bugs. And the centipede, which is perfectly harmless, is the most disgusting bug of them all. *Centipede* is the perfect nightmare—you're under attack by centipedes, spiders, fleas, and scorpions. Bugs are everywhere. *Centipede* was one of the first hit games created by a woman. Atari's Dona Bailey programmed the game in 1981 after leaving General Motors, where she worked on the computer functions of the Cadillac Seville. The game is one of the fastest-moving shooting games around, and it's been one of the highest-earning arcade games for over three years. After all the addicted *Pac-Man* players have moved on, people are still dropping quarters into *Centipede*. The game has legs.

It shares certain similarities with *Space Invaders,* but it's about a hundred times more complex. Your shooter is a bug blaster in the shape of a snake head that only fires upward. The bug blaster is restricted to the bottom third of the screen, but it can move freely within that space. You control it with a track-ball in the arcade game. Either a track-ball or a joystick is used in the home versions.

Across the screen are scattered about 25 tiny mushrooms. As the game begins, a centipede (11 segments and a head) enters the screen from the top. It moves laterally until it hits either a mushroom or the side of the playfield, where it drops down a row and reverses direction. In this way, the centipede winds its way down the screen. Naturally, if the centipede gets caught in a cluster of mushrooms, it will zip down the screen faster. You don't want it to reach the bottom because that's where *you* are. (Remember that fear of bugs?) Contact with the centipede means death. If you hit a centipede in the middle, that segment turns into a mushroom. The rest of the centipede breaks up into two smaller centipedes, which move in opposite directions. When you wipe out every centipede segment, all the mushrooms change color and a new bug enters from the top.

W hile you're trying to pay attention to the centipedes above you, a spider leaps out the left or right side of the screen at the bottom. You can easily avoid these, but they're worth so many points (300, 600, or 900, depending on how close they are to you) that going after them becomes an important part of the game. Spiders are quick, but you'll be pretty safe when you realize that they never go back over an area where they've already been.

To make things a little more difficult, fleas rain down the screen and create more mushrooms in their path. These can be shot for 200 points, or if you want to play it safe, you can just avoid them. The last nasty is the scorpion, which moves across the middle of the screen poisoning any mushrooms in its path. If the centipede touches a poisoned mushroom, it collapses and plummets crazily toward your shooter. Scorpions can also be nice— kill one and you'll get 1000 points. Each of these insects has its own distinctive sound.

With all these things to watch for, the *Centipede* screen looks like a jumbled mass of confusion, often leaving you frantically fighting for survival. Gradually, you'll discover strategies, such as leaving a dense block of mushrooms on the bottom of the screen to prevent the fleas from appearing. It's this complexity that has made *Centipede* such a long-running success. (In 1983, Atari released an excellent sequel, *Millipede*, which added even more insects and DDT bombs.)

Compatibility: Apple II, Atari, Commodore 64, Commodore VIC-20, IBM PC, TI-99/4A
Format: Cartridge, Disk (Apple and IBM)
Manufacturer: Atari Corporation

Missile Command

I f there ever comes a day when we have Star Wars weapons that make all nuclear weapons useless, at least some of the credit should go to Atari for creating *Missile Command*. Until that day comes, though, it has to rank as the most tasteless game in history.

It doesn't say so, but it's pretty obvious what this game is all about—World War III. You're defending six U.S. cities at the bottom of the screen. The missiles are on their way from the Soviet Union. You've got antiballistic missiles (ABMs) to blast them out of the sky before they can do damage. If one of the bombs hits one of your cities, it disappears in a mushroom cloud. Poof! The entire fate of the free world is in your hands. When you lose your last remaining city, a red-and-white nuclear blast lights up the screen and the words *THE END* fill the display. That's the end of the game . . . and the end of civilization. *And it's all your fault.*

There's some question as to whether it's wise to teach our children—the future leaders of the world—that nuclear war is a game. But there's no question that *Missile Command,* as a game, is fun. It has great graphics, a solid story line, and it requires a combination of quick reactions, precise coordination, and attention to dozens of details.

The enemy ICBMs fall from the top of the screen in jagged lines, sometimes alone, sometimes in groups. Occasionally, a plane or satellite flies by, spewing out a few more. The bombs often split off into separate MIRVs or converge in the sky. There are also smart bombs to contend with. These dance and hover erratically and attempt to scoot around your defenses as they home in on the cities below.

You don't just shoot the bombs out of the sky. Using a track-ball or joystick, you move a cursor around the screen. You have three missile bases. When you hit the button representing any one of them, an ABM is dispatched to the spot you've placed the cursor. It takes a moment to get there, longer if the cursor is far away from the base. When your ABM reaches the cursor, it detonates with a brilliant flash that covers about an inch on the screen. Anything within that area will be destroyed. The trick is to gauge the speed of the incoming warheads and the time it will take your antiballistic missiles to get there. Of course, you also have to push the button at the right instant. Since it takes time for your shots to reach the mark, you've got to "lead" the warheads, positioning the cursor in front of what you're trying to hit.
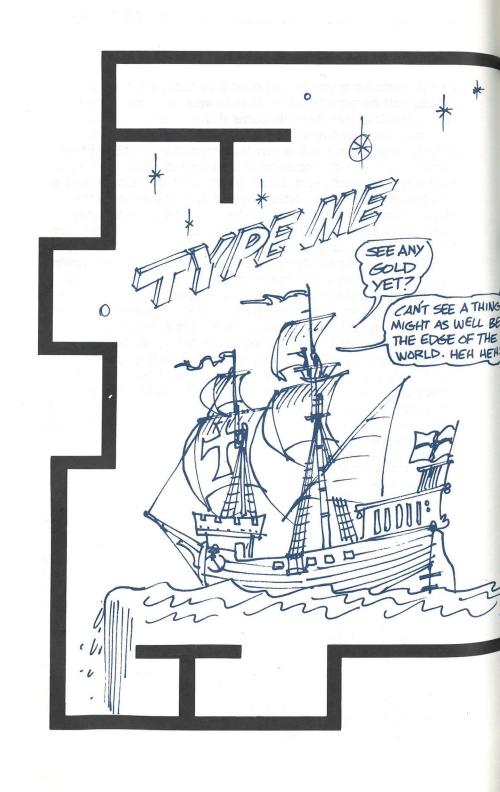
As the game progresses, the bombs fall faster, so your timing has to compensate. Sometimes you can take out two incoming missiles with one shot.
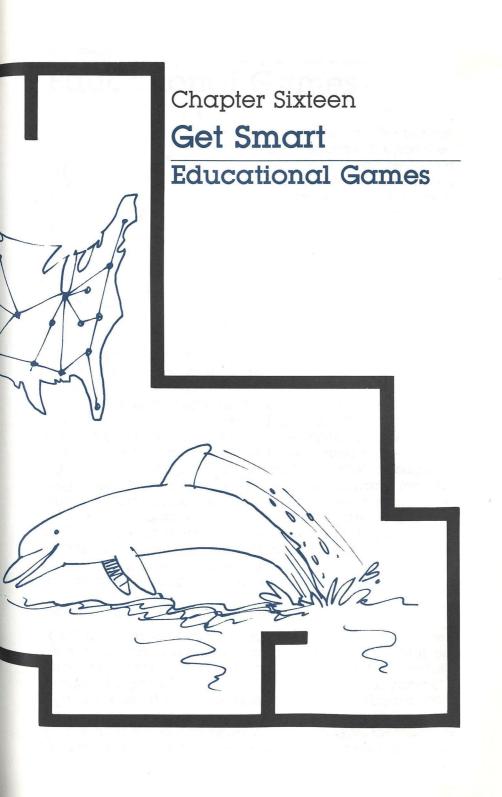
You can't sit around and admire your handiwork, either. Beginners soon learn that as soon as one ABM is off the pad, the cursor should be immediately moved to stop the next warhead. Each of your three missile bases has ten ABMs; the middle base shoots faster than the others. Extra points are awarded for any missiles you don't use at the end of the wave, but you'll be more concerned with saving Chicago than worrying about a few bonus points. When the bombs really start raining down, your only strategy is to detonate a line of ABMs across the sky in a desperate attempt to wipe out all the warheads. It's not a pretty sight, but it *is* a cool special effect. If you use up all your ammunition, that's tough. You can only sit there and watch your cities blow up. When you're down to your last city and it looks like the end is near, you'll be watching that screen as if your life, and everyone else's, depends on it. Next to *Defender*, this is the most macho game around.

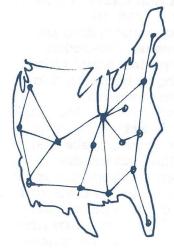**Compatibility:** *Atari computers, Atari VCS, Atari 5200,*
Format: *Cartridge*
Manufacturer: *Atari Corporation*

Chapter Sixteen

Get Smart

Educational Games

Educational Games

Computers could be the biggest thing to hit education since the spiral notebook. Imagine how a computer in every child's hands would change traditional learning: A child would be able to learn at his or her own pace rather than that of a group. Instead of passively listening, kids would learn interactively. Drills and repetition don't encourage creativity or develop inquiring minds the way the best interactive software does. With a computer, a classroom could even telecommunicate with other classrooms thousands of miles away.

Unfortunately, schools are tripping all over each other to get computers, as if the machines cure all ills. They don't. Poorly designed educational programs can harm a child as much as a poor teacher. A program created by a Ph.D. may teach or bore a child to death. We figure the last thing a child wants to do after a rough day at school is learn, so educational programs for the home should not be curricular. Most of the current educational courseware is in the form of simple games, but kids are too smart to fall for this thinly disguised teaching. The trick is to create a game that's fun to play, and just happens to teach something at the same time. The games in this chapter meet this demand.

Mastertype

While it doesn't make much sense to use a computer to file recipes or balance a checkbook, there is one chore that comes quite naturally to computers—teaching typing. The primary input of a computer is a keyboard nearly identical to a standard typewriter keyboard. Because a computer is interactive, it knows which keys you're hitting and can reward or punish you for mistakes. And by forcing you to look at a screen for instruction, it

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pulls your eyes away from the keys and forces you to learn touch-typing.

When you take the idea of a computer typing program and put it in the form of an intense, fast-action, arcade-style game, you've got the perfect way to teach children to type. And if they're going to be doing a lot of computing, that's one skill they definitely need.

In *Mastertype,* a large spaceship hovers in the center of the black screen. Stars twinkle in the sky. In each of the screen's four corners, a letter or word is spelled out, along with a rocket, asteroid, satellite, and another spacecraft. The words are your enemy. When you type any of those words correctly on the computer keyboard and hit the space bar, a blast of fire shoots out of your spaceship and wipes out the word. It's replaced by another. If you make an error, the word stays. The spaceship representing that word slowly moves toward your ship. They're coming at you from all sides. The faster you type, the faster you blow them up. If one of them touches your ship before you type the word correctly, your ship explodes in a shower of sparks. The screen tells you the bad news—"The words won."

To put it simply, you learn to type or you die.

M *astertype* takes you through 18 levels of typing proficiency. In the first, you're instructed to put your fingers on the home keys. The letters *A, S, D,* and *F* come flying out of the corners. When you've mastered the entire home row, you're challenged to wipe out the other rows, small words, six-letter words, and finally eight- and nine-letter words (like *jeopardy* and *equalize*). There are other lessons to practice punctuation, numbers, and combinations of the two (25%, 7/4/85, 3:45), and BASIC keywords (PEEK, POKE, LIST, REM). The most interesting lesson is the one you design yourself—type in a list of any 40 words you want to shoot. They can be anything from classmate names to words you have trouble with.

When you wipe out a wave of words, the screen displays your point total, the number of errors you made, and the number of words you typed per minute. You can decrease or increase the word per minute (wpm) pace, all the way up to 210 wpm (nobody's that fast). It's also

possible to use both uppercase and lowercase letters in order to learn how to use the Shift key.

Bruce Zweig's *Mastertype* is the best-selling educational computer game of all time because it methodically teaches a valuable skill in a way that's fun. *Mastertype*'s explosions are better than the average shoot-em-up's, and the computer adds a soft beep to every keystroke, making it clear when a key has been pressed. There's no reason why a child cannot take *Mastertype* and become a fully accomplished typist. And when you consider that all the child is doing is playing a computer game, that's remarkable.

(The only bad thing about *Mastertype*, ironically enough, is that the instruction booklet is filled with typographical errors.)

Compatibility: Apple II, Atari, Commodore 64, IBM PC, IBM PC XT, IBM PCjr, Macintosh (Apple IIc version has added lessons for the Dvorak keyboard layout.)
Format: Cartridge (Atari, 64), Disk (all)
Manufacturer: Scarborough Systems, Inc.

The Seven Cities of Gold

N ot many educational games give you the chance to discover lost cities, conquer civilizations, and steal gold. *The Seven Cities of Gold* doesn't bill itself as an educational game, but it *is* a valuable learning tool. You're a Spanish adventurer in the late 1400s (guess who?) on a mission of exploration, discovery, and conquest in the New World. The game doesn't help you memorize names and dates of famous explorers, but it does teach geography. More important, it gives you an understanding of what the early explorers had to contend with—something no history textbooks can provide.

Before you set sail, you stop off at the outfitter to recruit a crew and stock up on food and provisions. You choose all the numbers, and these decisions are important. Once you leave Spain, your food supply dwindles as the months pass, and you'll need plenty of goods to trade with the natives in America.

The ride across the Atlantic is uneventful, unless you run into bad weather. When you reach an island, you can sail around it or drop anchor and send out an expedition to take a look around. The New World is geographically correct—mountains and rivers are where they should be and there's more food available closer to the equator than further north.

When your party comes upon a small arch, you've reached one of the 200 settlements and the game screen zooms in for a close-up. Almost immediately, you'll be surrounded by tiny natives carrying spears and wearing headdresses. If you're in the mood, you can just mow them down *Robotron*-style—they pop like bubbles when you touch them. If you kill the chief of the tribe, the natives go berserk. That can be fun, but it doesn't serve your purpose, and you may lose a few men in the scuffle. It's a much better idea to make friends with the natives. You do this by leaving them gifts, moving cautiously, and trading some of your goods for their food or gold. They may ask you to set up a mission, or they may even give you a few native bearers for your journey. The game is programmed so that if you just run around killing people and taking their gold, word reaches other villages in the area and they treat you accordingly. It helps to have higher morals than the real explorers did.

There are other problems to contend with. If you don't get any food, you'll starve. While you're exploring deep in South America, you can forget where you left your ships. Or your crew may become impatient and leave without you. The worst insult is to return home with a boatload of gold, only to be snubbed by the Queen for your improper behavior.

As you explore the Americas, the computer constructs a map of where you've been, which you can consult at any time. (Hint: Discover Florida first so you can get your bearings.) After North and South America have been fully mapped, you can be a real pioneer and boot up the random continent generator. This creates an infinite number of new New Worlds, and more realistically recreates the "fog" of fifteenth-century exploration. You'll feel like Columbus himself, not really knowing what's beyond the island in front of you.

Seven Cities is perfect for a school class studying the exploration of America, but the game itself isn't perfect. Any class should supplement the game with a real map to learn names of places, and parents and teachers should inform youngsters that not all native Americans carried spears and looked identical. Seven Cities also requires a lot of patience. Just loading the game for the first time takes nearly half an hour on the Atari and Commodore. And while the designers took the trouble to include a bibliography in the slickly produced documentation, they don't tell you many specifics about playing or even loading the game. But then, maybe that's all part of discovering new worlds.

> **Compatibility:** Apple II, Atari, Commodore 64, IBM PC, IBM PCjr
> **Format:** Disk
> **Manufacturer:** Electronic Arts

Snooper Troops

Some bums with hoods over their heads busted into the Tabasco Aquarium and tied up Pete and Mike Tabasco. They also made off with Lily, the prize dolphin, and the police can't find a trace of her. Was it the rich kid who wanted a playmate? The conservationist who wants to return all wildlife to their natural environments? The owner of a rival amusement park?

This is the scenario of the second Snooper Troops episode—The Disappearing Dolphin. It doesn't sound very educational, and that's exactly why kids like the series so much. The child plays the part of a detective who snoops around town digging up clues to the crime. Though you don't learn much about reading, writing, or arithmetic, the game teaches several skills needed in high school, college, and beyond.

Snooper Troops is so complicated it appears as though a young person won't be able to understand it. Actually, it shows the respect author Tom Snyder has for children's intelligence. He includes almost no documentation in his games—children don't want to read through

long instruction manuals any more than adults do. Instead, he takes advantage of the natural curiosity of children—you just boot up the program and start "screwing around," as Snyder says. Gradually you discover what's going on. As the Snooper Trooper, you're equipped with a wristradio, Snoopnet computer, flashlight, camera, and Snoopmobile to help you get around the town of Costa Villa. You move the Snoopmobile (which can easily crash into walls) through the city streets with a few keys, which gets a child used to using a keyboard. The streets all have names. Because the screen displays only one small part of the city at once, the child soon learns that it's necessary to draw a map in order to get around quickly.

N owhere does it say that you have to write anything down, but note taking and organizational record keeping are the most important skills taught by *Snooper Troops*. Every few minutes your wristradio reports a message like, "Mr. X will accept a call on next Friday only." Mr. X is your Deep Throat. To find out his hot tip, it's necessary to jot down when he'll accept the call, keep an eye on the days of the week on the screen, and follow your map to a phone booth at the appointed time. Certain locations are accessible to you only on certain days, so this information must also be recorded. In addition, before interviewing any suspect, you have to give your badge number. Because this number is frequently changed, you've got to keep a running list.

There are nine people in Costa Villa, and each has a motive for stealing Lily the dolphin. Their phone numbers and addresses are in your Snoopnet computer, and one of the joys of *Snooper Troops* is sneaking into their houses when they're not home. Since you don't want to turn the lights on, you have to use your flashlight to see. But if the suspect comes home while you're searching the joint for clues, you'll have to turn off the flashlight and get out of there. It's then that you learn you should have drawn a map of the house while you were able to see it.

It's this subtle learning that is so educational, and so much fun at the same time. You're encouraged to plunge right into the game without any careful study, but it's a

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combination of research skills and classification that the game teaches. The *Disappearing Dolphin* and the first *Snooper Troops* episode—*The Granite Point Ghost*—aren't graphically spectacular, but they don't have to be. A lot of educational games dazzle children with pretty pictures, but don't hook them and don't teach them anything. *Snooper Troops* does both.

Compatibility: Apple II, Atari, IBM PC, IBM PCjr
Format: Disk
Manufacturer: Spinnaker Software

Agent USA

There have been plenty of programs that attempted to teach children geography, but most of them are just computerized flash cards. *Agent USA* gives you the responsibility to rescue every man, woman, and child in the country, and if you happen to learn a little about states and capitals along the way, that's good, too. The education is secondary to a good game.

Professor Elma Sniddle, the story goes, was trying to invent a new type of television. Suddenly 12 glowing crystals fell from the sky into her backyard. She put one of them into the TV set as a power source and the set turned into an evil Fuzzbomb. Professor Sniddle herself was zapped into a Fuzzbody. Now it's up to you to stop this menace before every city in the United States gets fuzzed.

Your manhunt, or fuzzhunt, is carried out via the nation's railroad system. The program comes with a map of the U.S., including about 100 major cities. If you move your little character (a white hat with feet) into the ticket booth in Atlanta, Georgia, for example, you'll see a board announcing trains to nearby cities in Florida, Alabama, and South Carolina. You can buy a ticket by typing in the name of a city. Trains leave for different cities every 30 seconds, so it's wise to note the exact departure time down to the second before heading up to the platform and hopping on any train. (If only trains were this reliable in real life.)

You could ride from city to city like this forever, without meeting up with the Fuzzbomb. To determine its location, you've got to catch a train to any state capital, where Infobooths are located. The Infobooths contain maps of the U.S., indicating which city the Fuzzbomb is currently terrorizing and where it's likely to strike next. These accurate maps appear on the screen. If the Fuzzbomb is in Philadelphia, Pennsylvania, and you're in Salem, Oregon, you'll be hopping on and off a lot of trains. Capital cities also have rocket trains which can take you halfway across the country.

A nd then there's this business about crystals. The only way to kill the Fuzzbomb is to sock it with 100 crystals, the most you can carry at once. Since only 12 fell on Professor Sniddle's backyard, you've got to harvest crystals as you make your way cross-country. You do this by dropping a few on the ground while you're waiting for a train. The crystals reproduce magically and you can grab them up. The local townspeople (dark hats with feet) will snap them up, too.

As you get closer to the Fuzzbomb, you'll run into Fuzzbodies—ordinary citizens the Fuzzbomb fuzzed. They'll turn you into a Fuzzbody, too, unless you drop a crystal in their paths to turn them back into humans. This, of course, depletes your crystal supply. Trying to harvest crystals while fighting off hordes of rampaging Fuzzbodies is furious fun—more exciting that a lot of arcade games.
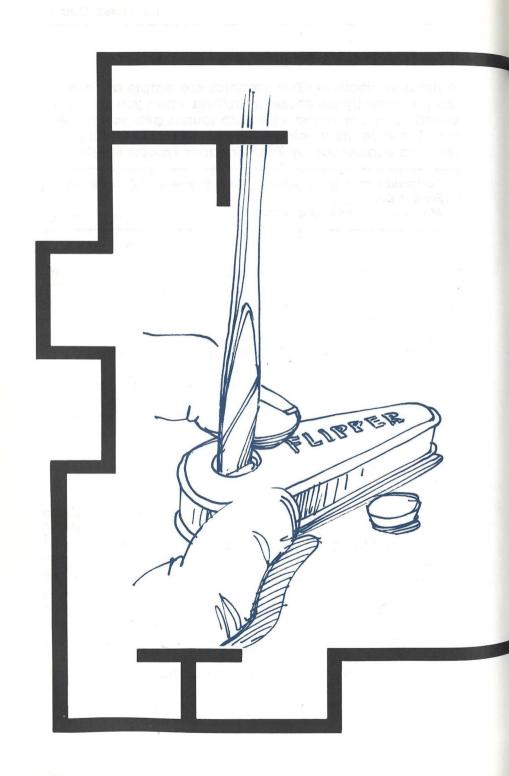
Agent USA is more than a cute geography lesson. You can't help but learn the cities and state capitals of the U.S., but the game also encourages planning and problem solving and gives the child an awareness of distance, direction, and time. The game even tells you when you enter a different time zone. Incredibly, all the cityscapes are modeled after the real cities (New York has the Empire State Building and World Trade Center on the screen), and if you happen to arrive at night, you see the
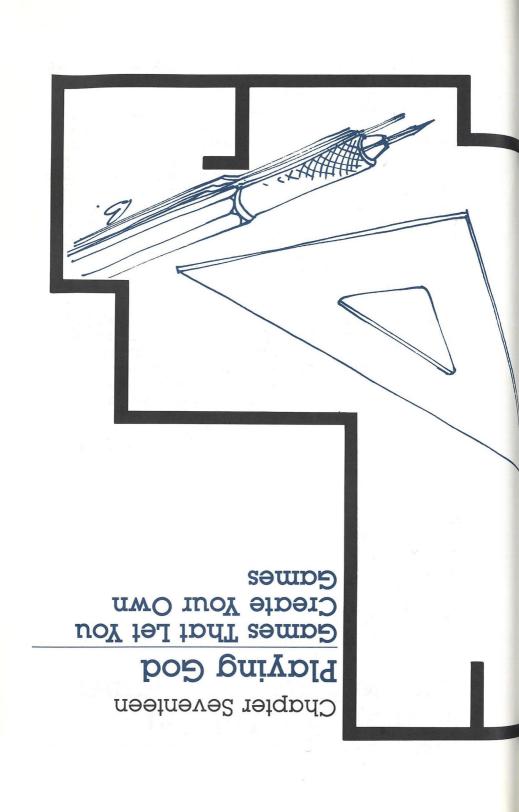
skylines in silhouette! The graphics are simple but elegant, especially the rocket train, and when you get on board, jazzy spy music with train sounds gets you in the mood to save the whole world. This is another classic learning experience by Tom (*Snooper Troops*) Snyder.

Compatibility: *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr*
Format: *Disk*
Manufacturer: *Scholastic Software*

Chapter Seventeen

Playing God
Games That Let You
Create Your Own
Games

Games That Let You Create Your Own Games

Before the home computer, many children dreamed of being famous celebrities. Little boys wanted to be sports heroes—the next Mickey Mantle or Willie Mays. Girls had role models of their own—like Hollywood stars or Olympic gymnasts. Now, when it seems like many celebrities, from professional athletes to box office draws, are all multi-million-dollar corporations or convicted drug dealers, some young people have a more innocent dream—to create the next *Pac-Man*.

Computer games are different from most other games in that they frequently allow the player to alter the game parameters. There are usually several difficulty levels, options of different speeds, numbers of players, and colors on the screen. These elements allow players of all kinds to enjoy the game. More important, they give the player a feeling of power and control. Some people argue that it's the whole point of playing the games—you can be the master of your TV screen.

Software which goes one step further provides players with all the elements of a potential game and lets them play around until they come up with something they like. With this sort of program, even a player who knows nothing about computer programming can become an amateur game designer. Often you can hit a few keystrokes to select from a collection of characters, backgrounds, and other game elements stored in the program's memory. Players who are intrigued by this power frequently go on to learn programming and create games from scratch.

Even if you don't learn programming, using one of these programs to create your own games may be even

more fun than playing a game. These days, instead of
building funny cars and dune buggies, young people
are customizing their own computer games.

The Arcade Machine

If you think all of today's arcade games are garbage,
but you lack the computer programming background
to do any better, *The Arcade Machine* is your dream
come true. This "game" allows a novice to create de-
tailed, fast-action, arcade-style games—the only limita-
tion is the user's imagination.

Relax, because designers Chris Jochumson, Doug
Carlston, and Louis Ewens have already taken all the
intimidation out of the process. Four uncomplicated
sample games created with *The Arcade Machine* are in-
cluded so you can get your feet wet by modifying an
existing game before writing your own. The documenta-
tion guides you every step of the way. *The Arcade Ma-
chine* is flexible enough to give you plenty of freedom,
but not so free-form that you become overwhelmed with
options.

The program is actually a collection of programs—
a Shape Creator, Path Creator, Background Creator, and
Sound Synthesizer—that work together. The **Shape Cre-
ator** allows you to draw up to 24 shapes on the screen.
These shapes are drawn the same way professional
game designers do it—with a grid of tiny blocks. Using
a small (8 X 7), medium (10 X 10), or large (15 X 12)
grid, you turn the dots on and off to construct blocky
shapes. You can even make shapes mutate.

The **Path Creator** makes these objects move across
the screen in any way you desire. You can construct up
to ten path tables, and manipulate the speed of the vari-
ous objects. The Path Creator also allows you to animate
shapes. If you draw a figure in seven different poses and
move it in sequence, it will resemble a cartoon. Explo-
sions, by the way, are done similarly. They don't move,
but if you draw two images in a single location and flash
them one after the other, it looks like something expand-
ing as it blows up.

The **Background Creator** works like the popular art programs. You use the screen like a canvas and draw boxes, circles, and lines, and fill spaces with any of four colors. You can even create your own title screen with three-dimensional lettering.

The **Sound Synthesizer** creates short musical sequences as well as explosive sounds. The options here are intriguing. All explosions do not sound alike. For instance, you can vary the pitch, tone, volume, duration, and number of cycles to create different sounds to represent a missile firing and a missile hitting its target.

There's no right or wrong in *The Arcade Machine.* If your game isn't perfect, you can go back and change it or add to it. You choose what to design first, whether the backgrounds or the shapes. A game is built layer by layer. You'll find yourself going back and forth between functions to see how they're interacting. If you get lost, just hit the Return key to get back to the main menu. And you can test-run your partially created game by hitting just one key. When your game is finished, you can save it to disk, and even give copies to your friends.

The Arcade Machine isn't as simple to use as *Pinball Construction Set.* If you just want to get into casual game creating, start with *Pinball* or *Lode Runner.* The 86-page instruction booklet, though well-written, is too advanced for younger children. But *The Arcade Machine* is great for teenagers and adults who have time, patience, and the desire to invent new games.

Compatibility: Apple II, Atari
Format: Disk
Manufacturer: Brøderbund Software, Inc.

Lode Runner

Even if you couldn't create your own games in Doug Smith's *Lode Runner,* it would still be a great game. Because you can, it's a masterpiece. All serious game players should definitely have *Lode Runner* in their libraries.

Your mission, should you decide to turn on the computer, is to scarf up all the gold chests that the power-hungry Bungeling Empire has ripped off from your peace-loving people through excessive fast-food taxes. Your character—a galactic commando—and the guards chasing you are tiny, but realistic, figures. You'll be running across brick walls, up and down ladders, over trap doors, and hanging from bars. Sometimes, the gold is lying around in plain sight; other times, you've got to bust into secret passageways to get it. All the while the guards are running after you like groupies at a rock concert.

Neither the graphics nor the sound in *Lode Runner* is anything to rave about. The game's attraction is in its play action and complexity. After you pick up all the gold in the first treasury room, a ladder appears that leads to the next in the series of 150 rooms. All these rooms contain the same elements of bricks, ladders, bars, gold, and guards, but each is arranged differently.

There's plenty of action in *Lode Runner*, even though it's mainly a nonviolent game. Your weapon is a laser drill pistol which can be used only to dig holes in the floor, something along the lines of the popular game *Apple Panic*. You can't shoot the guards with it, but you can lure a guard into chasing you, drill a hole in the floor, and watch him fall. You can also use the pistol to carve up the maze and create an escape route or to dig for gold in closed chambers. You earn an extra life every time you clean out a room.

The basic game is addicting and makes you use your head as well as your hands. The guards aren't stupid. You'll need a carefully planned strategy to get past even the first level. Level 64, for example, seems physically impossible—until you realize that you have to leap on top of a guard's head while he's falling and use him as an elevator. You'll find yourself using the game's pause feature to study the screen for a moment before tackling it. Even so, you'll probably never get through all 150 rooms. Fortunately, Brøderbund has included a cheat mode. The tap of a few keys allows you to play any level of the game. You can also add lives to your dwindling supply and slow down the action for younger or less adept players.

O nce you play a few hours of *Lode Runner*, you'll be itching to create your own screens. This is easier than it sounds. In the Apple version, you hit Ctrl-E, then I, to initialize a disk; substitute a blank disk for the game disk, tap Y, then E, and you're in the generator mode.

You don't actually "create" your own game. Every *Lode Runner* screen is made up of nine basic shapes, and you can't change them. But you *can* distribute them any way you please. Hitting the 8 key, for instance, draws a Bungeling guard, and you can place him at the top of the screen, the bottom, or anywhere in the middle. Similarly, you place every ladder, brick, and gold chest somewhere on the screen. It's actually hard work. But when you finish and the little guys are chasing you through your own structure, there's a definite feeling of accomplishment. After you generate a few screens and save them to disk, you may never play the standard *Lode Runner* again.

A few other touches make *Lode Runner* a classic: Each screen opens with an expanding circular area that gives you the feeling you're looking through a telescope. You can speed the action up or slow it down. You can use a joystick or the keyboard. The game has a self-playing demo mode and even a high scorer's chart.

Lode Runner isn't a game you get tired of after a few plays. If you like it at all, it will keep you busy for months. With 150 screens and the option to create your own, it's one game that really makes you feel you got your money's worth.

Compatibility: *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr, Macintosh*
Format: *Cartridge (64), Disk*
Manufacturer: *Brøderbund Software, Inc.*

Pinball Construction Set

A lot of people thought computer games would kill pinball. Actually, it hasn't happened. Game designers have repeatedly attempted to recreate the experience of playing pinball on the television screen, with

varying degrees of success. If anything, the popularity of computer games has contributed to a rebirth of pinball, proving that what counts is how much fun a game is, not the level of technology.

Bill Budge's *Pinball Construction Set* is one of the most remarkable games ever created. Not only does it give you five ready-made pinball games to play, it gives you the power to create an unlimited number of your own games. The success of *Pinball Construction Set* has led to other do-it-yourself simulations, such as *Music Construction Set* and *Project Space Station.*

Pinball Construction Set begins with a naked pinball machine on the left of the screen and a parts box on the right. You move a hand icon to drag parts over to the pinball machine, then place them wherever you like. The parts box is filled with flippers and bumpers (two sizes of each), drop targets, slingshots, kickers, and other components of a real pinner. There are 32 parts in all, and since you can choose parts more than once, you can create a pinball game with as many as 128 parts on the field. Some of these, like magnets and invisible ball eaters, aren't even found in real pinball machines. These grab-and-place actions are almost all carried out with a joystick—you rarely touch the keyboard.

When you're satisfied with the look of the screen, hit the play icon. The flippers flip at your command and the kickers kick. If the game is flawed, you can edit it. Let's say the ball keeps getting stuck behind a flipper. You merely move that flipper down slightly to fix the problem. Or if a ball keeps falling into the same dead end, you can plug up the alley. And if the game still doesn't play right, just drag the whole mess away and start over. With the simple 13-page instructions, you can whip up an original game in just 15 minutes . . . or you can fine-tune it for months and construct a masterpiece. You can save your game on a disk and play it as often as you like. The program even gives you permission to invent games and give them to friends who don't own *Pinball Construction Set.*

If that was all *Pinball Construction Set* did, it would be remarkable. But that barely scratches the surface. The real power of the game is astonishing. You can paint your pinball machine with five colors and personalize the backglass with your name or a title. You can magnify the screen seven times for pixel-by-pixel precision painting. You can monkey with the point values of each target, as well as reprogram the sounds targets make when hit. You can take shapes out of the parts box and use a hammer or scissors to make them into anything you like. You can do things even real pinball designers can't—you can thumb your nose at Isaac Newton and play with the physics of your game by manipulating the force of gravity, the speed of the ball, the elasticity of the bumpers, and the strength of the flippers. If you've always wanted to see what it would be like to play pinball on Uranus, *Pinball Construction Set* lets you realize your dream.

There's only one thing you *can't* do with *Pinball Construction Set*—tilt!

> **Compatibility:** *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr, Macintosh*
> **Format:** *Disk*
> **Manufacturer:** *Electronic Arts*

Night Mission Pinball

Playing a pinball game you've built with *Pinball Construction Set* has its creative rewards, but you'll never duplicate *Night Mission Pinball*. Written by Bruce Artwick, who created the classic *Flight Simulator,* this stunning simulation is a pyrotechnical tour de force—and while you couldn't improve on the action, you can customize it by setting dozens of adjustable parameters. Even without this consideration, *Night Mission* is easily the best simulation of the machines which reigned for years before *Pac-Man* reared his yellow head.

The pinball machine takes up the center of the screen, while scores are displayed on the left. The *Night Mission* logo and quarter slot are on the right. You must

press Q for each quarter you intend to spend: A big
quarter rolls out and clangs into the slot. Like real ma-
chines, it's designed around a theme—a World War I
night bombing raid. Planes and falling bombs ornament
the layout, and five rollover lanes at the top bear the ini-
tials *NIGHT.* Targets include five bumpers, seven
standups, a hole kicker, nine rollovers, and a couple of
spinners. There's a 25,000-point chute running up the left
side of the table, and the ball whistles like a dive
bomber as it shoots over flickering lights (representing
enemy cities) on its way back to the top.

Sound effects on the Atari and Commodore versions
are sensational, like listening to the final battle sequence
in *Tora, Tora, Tora.* A column of bombs represents bonus
points; each explodes as it's added to your score at the
end of a turn. *Night Mission Pinball* is a great game for
extracting revenge on noisy neighbors, but the sound
can be toggled off if you prefer. It's a multiball game,
and up to four balls may be in motion at once. After sev-
eral balls collect in the chute at the top, they're shot back
onto the table.

Joystick control is possible, and two joysticks may be
used instead of multiple players alternating on the same
controller. Either way, you still have to hit the keyboard
to tilt the machine left or right. That's why keyboard con-
trol is more effective and comfortable. Up to four players
can compete. One shoots, then play passes to the next; a
running score is posted with digital displays. You can win
free games by scoring the required number of points for
that mode or by matching your score's last two digits
with a pair of randomly generated numbers.

B efore creating your own version, you'll want to try out
the nine preset modes. They range from easy to
competitive, high speed to slow motion. Most exotic is the
cosmic mode, where the balls leave trails as they fly
around the table. It looks like fireballs under a strobe
light. When three balls are in play, the effect is psyche-
delic. After getting the feel of the game, you can type FIX
before starting a session and access a three-screen listing
of parameters.

First thing you'll want to do is set the free game
score. (Knock it down to 500, to be sure you rack up

plenty of free games.) Adjust the flippers' kick to suit your reaction time. The number of balls per game, usually five, can be varied, up to 99. Gravity's effect is adjusted by changing a value representing the table's forward incline. Tilt effect and sensitivity may be set. The Randomizer insures that the ball won't always travel the same path. You'll enjoy putting on your own light show by varying the ball's speed and number of trails per ball. Commodore owners can fiddle with six color and resolution controls to paint their pinball machines in dozens of combinations.

A self-play mode lets you see how your changes affect the game's playability, and you can whittle away and get it right before saving the game to disk. The high score can be saved and updated automatically with each session. Incorporating the same physics that affect the ball's motion in a genuine game, *Night Mission* satisfies even the most fanatical pinball wizard.

Compatibility: *Apple II, Atari, Commodore 64, IBM PC*
Format: *Disk*
Manufacturer: *Sublogic Corporation*

Adventure Construction Set

What could be more fun and exciting than conquering fantasy worlds filled with ferocious monsters and evil wizards? Creating your *own* fantasy world, of course, and watching someone else try to survive its dangers. It's easy with *Adventure Construction Set,* and the best part is that you won't have to program a single line of code. *Adventure Construction Set* utilizes a series of unique menus and joystick control in each phase of a game's construction.

All *Adventure Construction Set*–engineered games feature animated characters whose lives hinge on maintaining a certain number of hit points. These hit points are reduced if a character is wounded while battling any number of the game's assorted creatures. Your character is moved via joystick, and you can select other

actions by pressing the fire button, then moving a cursor to highlight one of 12 options (use magic, rest, fire, and so on) shown at the bottom of the screen. A game's long-range goal—save the princess, kill the evil whatever, or anything else you might imagine—can be stated in an all-text message at the outset or left for the player(s) to discover. Some puzzles (where to find the key to open a certain door, which spell kills what creature) may be worked into a game, and there are methods for displaying more text to reveal clues. But the emphasis is on realtime combat and magic-oriented action rather than on solving logical problems. Thus, this is really more of a "role-playing game construction set."

In combat, there are three ways to attack without resorting to one of the magic spells. Missile weapons, such as spears and pistols, are fired by guiding a cursor to the target, then stabbing the fire button. The results are animated as the shot slowly sails across the room. Daggers, swords, and other melee weapons are wielded by trying to move onto a space occupied by another character. A line of text describes each blow's results, while vertical bars indicate character life force and power reserves. When the life-force bar vanishes, your character dies. He or she can be reincarnated by restoring a game, assuming it was saved during a previous session. Up to four player characters can be controlled by taking turns on one or two joysticks. They can even attack each other, which is rare for any role-playing game.

The playing environment resembles that of the Ultima series. All games created with *Adventure Construction Set* begin on a world map, 40 × 40 squares in size. (These squares are not shown by a visible grid.) Only a 10 × 15 square area is visible at any given time, a view which scrolls when your character reaches the edge of the screen unless you select the no-scroll option during game development. Thirteen kinds of terrain features, including trees, mountains, desert, and rivers may be planted anywhere on the world map. Four types of portals can be used to permit entrance to what are called regions. Portals serve the same purpose as the images of

castles and towns in *Ultima*. When your character moves atop one, the disk is accessed and the world map is replaced with a map of that region.

Regions, comparable to the interior scenes in *Ultima*'s towns and cities, are composed of rooms, whose shape and size are easily defined by drawing with the joystick. You can install doors which lead to another region, back to the world map, or to another room in the same region. From a list of 128 creatures, you can designate which will randomly appear in what types of terrain. Creatures can also be assigned as residents of specific rooms or allowed to roam at random. You'll select from friendly, neutral, evil, and other classes of creatures. There's also a Master Thing List, with all sorts of weapons (from golf clubs to lasers), treasures, armor, ropes, lamps, and other useful items. You can easily edit existing things and creatures to change their effects and characteristics or to make new ones. Their pictures can even be touched up with a joystick-manipulated brush or drawn from scratch.

To accomplish all this, *Adventure Construction Set* uses what might be called a set of gearshift menus. They're well-structured and easy to master. The options in each of the three main menus are connected with straight lines. To select an option, you move a cursor around the pattern until it hovers over something, Edit World Map, for example, then press the button. In this case, a blank map appears. A similar menu at the bottom of the screen lets you view terrain types and place them on the map. You can also determine conditions under which characters may pass through each kind of terrain, and whether or not doing so triggers a magic spell or some other effect. Similar minimenus accompany additional editing options and facilitate choosing creatures, weapons, and other things from various lists.

Magic spells may also be attached to doors and objects to throw in a few surprises and keep the game exciting. Spells include "Kill All But an Owner of" (you fill in the object's name), "Give to Victim" (pick an object), "Display Message" (you write it), and 12 others. "Custom Spaces" offers a means for installing magic spells and other effects anywhere in a room. Sound effects and several musical themes are available for the micromaestro

and certainly contribute to the atmosphere of any fantasy world.

Before beginning construction, you must use a built-in option to copy one of the three construction sets (Fantasy, Spy/Mystery, or Science Fiction) onto a blank disk. Or you can "Erase Everything But Graphics" and replace the Creature and Thing lists with your own inventions. A small world can be assembled overnight, then saved and elaborated upon in later sessions. Each game can have up to 15 regions, holding 16 rooms and 300 objects each. Up to 335 text messages can be used in a single game. If you're not happy with your new world, just delete it. Or wipe out any rooms, regions, things, or creatures you're not happy with. You can also edit them to your satisfaction, revising their behavior patterns and other characteristics. An unfriendly, aggressive dragon can be transformed into a cuddly koala bear, for example, and represented with a new picture. *Adventure Construction Set* can also finish an incomplete game for you, providing new rooms and regions, a goal, and assorted creatures.

*A*dventure *Construction Set* comes with a game called *Aventuria,* which contains seven miniquests which act as tutorials. The manual refers to some scenes to illustrate how tools and features can be applied. There's also a full-blown game, *Rivers of Light,* written by the set's author, Stuart Smith. (Smith previously programmed *Ali Baba* and *The Return of Heracles.)* After playing these games, you can direct *Adventure Construction Set* to scramble their make-up and contents to turn them into new scenarios with fresh goals and challenges.

These games also provide something to play when you're not busy hammering out your own scenarios. That's the big difference between *Adventure Construction Set* and something like *Pinball Construction Set.* With the latter, you can build a pinball game and enjoy playing it. But since you know where the treasures are hidden, which spells to cast, and the like, *Adventure Construction Set* isn't that much fun to play yourself. Instead, the satisfaction lies in the experience of conjuring up a fantasy world and watching someone else enter it (and
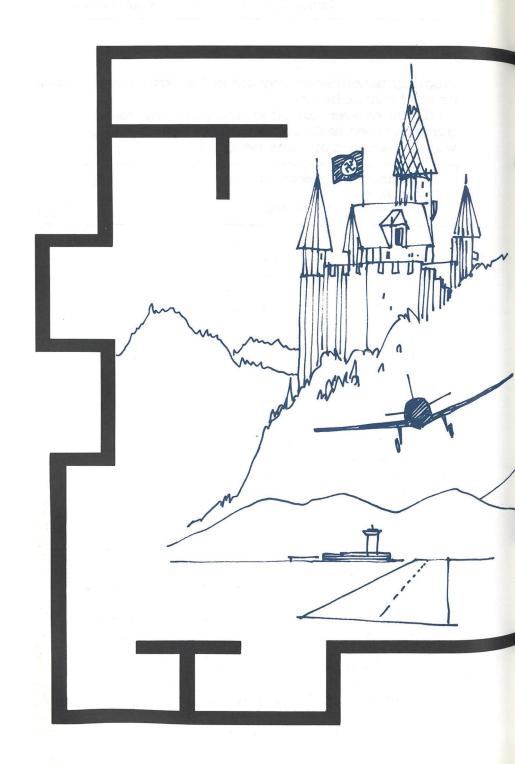
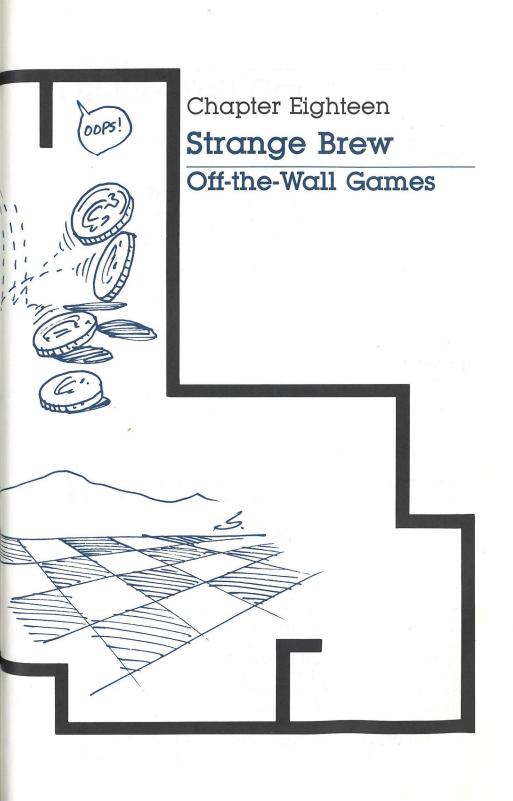laughing fiendishly as they die in the claws of your two-headed jinnzak beast).

If you've ever wanted to "roll your own" role-playing game, *Adventure Construction Set* is your magic doorway to the world of game design.

Compatibility: Commodore 64
Format: Disk
Manufacturer: Electronic Arts

Chapter Eighteen

Strange Brew

Off-the-Wall Games

OOPS!

Off-the-Wall Games

Some of the best computer games can't readily be assigned a berth in one of our standard categories, though not always for the same reason. Some, like *Realm of Impossibility*, combine elements of several types of games to form a hybrid that's impossible to sort into any of the bins. Others, like *Flight Simulator,* perform so much better than anything else in their league that they wound up being the only game of their type good enough to be included in this book. A few are truly unique in conception, design, and presentation, real one-of-a-kind games, like *Archon.* If you're looking for something really exotic in computer gaming, consider one of these off-the-wall ways to have fun.

Archon

The board looks familiar at first. It has the right number of black-and-white squares and they're in the right arrangement. Then you notice that five squares contain blinking red circles. And that the pieces look like refugees from some fantasy role-playing game. When some of the lighter squares slowly turn totally black, you know this is no ordinary chess board.

Archon purports to depict the "eternal struggle between Light and Darkness." In other words, just another way of saying good guys versus bad guys. A wizard serves as the Light Side's king, while the Dark Side is led by a sorceress. Each side has 18 pieces of eight different types. Instead of pawns, kings, and rooks, you have icons which represent mythological beings like trolls, basilisks, dragons, and unicorns. Some bear swords, others death beams. Neither side has the same *type* of icons, though their forces are of relatively equal strength. For the strategy phase, the pieces are lined up as in traditional chess.

Those five flashing squares are your key to victory. Plant one of your pieces on each of these power points and the game's yours. Moving during the strategy phase is coordinated by moving a cursor to a piece and pressing the fire button to select and lock it. A message at the bottom names the piece and tells how far it can move. Most icons travel strictly along ranks and files and on the ground, while others can fly diagonally as well. Then you guide the icon to the desired square and hit the joystick button again. The program insures that you don't make any illegal moves. Like chess, *Archon* insists that you move a piece once you've selected it.

For long-range travel, the wizard and sorceress can teleport any piece across the board. These icons can perform other magical feats, like causing any two pieces to trade places. Other spells, each of which may be used only once, allow you to imprison an enemy piece on his current square, revive a dead piece, heal a wounded one, and summon an elemental creature to do your fighting for you. Effective spellcasting is as important as chesslike strategy. Even so, you won't get far without a fast fire-button finger.

You don't just capture an opponent's piece and effortlessly lift it from the board. In *Archon*, you've got to fight for every contested square. As soon as your unicorn lands on a banshee, the board vanishes, replaced by the combat arena. The two pieces are individually controlled, and amidst a scattering of varicolored barriers, the superbly animated creatures go at it. Some chuck spears or shoot arrows or lightning bolts, while others tote swords and are more effective as in-fighters. Smart players consider the strengths and weaknesses of both pieces before leaping into the fray. It's possible to shoot or run through a barrier when it changes color to match the background, a technique you can use if you're fast.

You can't just blast away madly, either. Before firing the next shot, each player has to wait until a specific tone indicates the icon has had time to swing the sword or grab another spear. A colored bar running up each side of the combat screen reflects the pieces' lifelines. It shrinks each time your piece is hit—the icon dies when

the bar vanishes. As soon as a character is killed, the victor returns to the newly won position on the board, unless there's a double kill and no one survives. Play resumes with a fresh strategy phase.

A unique element in *Archon*'s strategy involves staying in synch with the luminosity cycle of the 28 squares. This cycle gradually shifts the squares' colors through four shades, from pure white to dark. The Light pieces are stronger when on light squares, Dark pieces do better on dark squares. This means the cycle can have a dramatic effect on the outcome of a battle. It takes some offbeat footwork to keep your pieces on the most beneficial squares, especially prior to a key assault. The most valuable magic spell shifts time, reversing the luminosity cycle; this can be providential if used right before an all-out attack on the power points.

Each creature and weapon has its own distinctive sound effect in the combat scenes. You'll even hear the unicorn's hoofbeats clomp along as it races around the screen. Every creature has been brought to life with interesting animation, displayed from different angles as they turn and run, swing swords, hurl fireballs, and generally run amok. Some of the battles resemble animated versions of Marvel comic book stories, especially when the Hulk-like Golem stomps across the screen and lunges at a twisting, fire-spitting Dragon. The computer's a tough opponent, and makes *Archon* a game best played against a flesh-and-blood foe. In fact, it's among the top two-player games ever.

> **Compatibility:** *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr*
> **Format:** *Disk*
> **Manufacturer:** *Electronic Arts*

Castle Wolfenstein and Beyond...

Silas Warner says a TV rerun of *The Guns of Navarrone* inspired him to write *Castle Wolfenstein,* a classic shoot-em-up-in-a-maze game. The red brick maze represents the many rooms of a European castle commandeered by the Nazis. Viewed from overhead, it's

crammed with Krauts intent on capturing or killing you, an Allied soldier, before you can locate the secret plans for Operation Rheingold and make your escape. It's exceedingly well-animated, and looks similar to *Aztec* (though the graphics aren't quite as detailed). However, you have no strength or hit points to keep you alive here—the Nazi guards either capture you or shoot to kill.

Armed with a pistol containing a single clip (ten bullets), you've got to scrounge up more weaponry as you cautiously make your way through the castle. The action starts on the lowest level, where your character's footsteps click on the cobblestone as he moves in any of eight directions. Keyboard or joystick can direct his path and aim the pistol. Commands to use a chest's contents, throw a grenade, aim and fire the pistol, and check supplies are executed by pressing the proper key. A combination of keyboard and joystick action facilitates the unusually flexible control, though the keyboard approach is most effective.

Climbing the first set of stairs, you'll quickly stumble upon a couple of guards. You can't miss them—they'll be the ones wearing swastikas on their jackets and goose-stepping back and forth across the room. The guards are programmed to stick to a particular path until you get close, but the S.S. storm troopers in the blue bulletproof vests immediately rush to knock you off. Try not to run into the walls in your mad dash—you'll be stunned temporarily, the screen will flash, and an audio alarm will screech.

Built-in voice synthesis provides some clever comic relief. Some guards yell "Achtung!" or "Schweinhund!" or any of six other German phrases when they spot you. If you get the drop on one, he'll surrender—but be careful—he'll promptly blow you away if you lower your pistol. A captured or killed guard can be searched for keys which unlock doors or chests. A timer ticks off the seconds, often several hundred, before the chest opens. If you don't have the keys, you can always shoot the lock off or toss a grenade at the chest. But some chests are packed with explosives, and shooting one is no way to win the war (the game ends and a different maze is generated). Many chests are empty, but a few reveal hand

grenades, schnapps, a bulletproof vest, bratwurst, and other items. If you're lucky, you'll find a Nazi uniform, which enables you to boldly walk undetected through a roomful of guards. The storm troopers are the most tenacious opponents; once one picks up your trail, he relentlessly pursues you. Because the storm troopers are protected by bulletproof vests, the grenades are among your effective weapons. Aiming and tossing the grenades is a tricky maneuver, but one that's satisfying when mastered.

Mapping the maze makes sense, but the lack of a pause feature means you'll have to scribble fast or get a friend to write while you play. After getting killed or captured, you have a choice of starting over with a new maze or trying the same one again. By returning to the same maze, you have a slight advantage. Beginning at the same spot, you can retrace your earlier path, stepping over the bodies that litter the floor, and reenter the room where you were just killed. This time you'll know what's waiting for you. Games in progress can always be saved to the game disk.

At the end of each session, your current score is displayed. Beginning as a private, you'll have to earn your stripes by escaping with the war plans before you'll be promoted to corporal. Each time you complete the game, you're promoted and the next maze becomes more difficult. From corporal through sergeant and up through six other ranks to general, you'll definitely reenlist in this man's army over and over. (There's also a mystery rank whose title is only revealed to the most gung-ho soldiers.)

The sequel, *Beyond Castle Wolfenstein*, picks up the story as World War II is winding down. The underground resistance movement has smuggled you into the courtyard outside Hitler's Berlin bunker. A confederate has hidden a briefcase containing a bomb inside a closet on the first of the bunker's three floors; you've got to find it, sneak it into the Führer's conference room, and get out before it goes off. Visually, the mazes look similar to those of the first game, and fresh ones can also be created for new games. The storm troopers and other Nazis are different, especially the animated Hitler. Your

character is controlled in the same manner, but has more options.

You can still shoot the guards, but that sets off an alarm and brings even more running. (If you use a dagger, the alarm won't sound until someone finds the body.) Once a guard stops you, he asks to see your pass. Press a key from 1 to 5, and if that's the number of the pass he wants, fine. Or you can bribe him with some of the 100 German marks you start with. Otherwise, he'll capture or kill you.

Closets serve the same function as the chests in the original. They contain more weapons, first aid, money, passes, and other items. Hitler's diary even turns up in the first one—but like the version bought by *Der Spiegel*, it's a phony. A few closets are locked, requiring you to figure out the three-digit combination by pressing keys until you get it right. Occasionally, you'll run across a bureaucratic Nazi officer lounging behind a desk. He can be bribed for cryptic clues you have to decipher. There's a timer on the bomb, and you've got to set it correctly in order to escape via one of the elevators. *Beyond Castle Wolfenstein* requires even more manual dexterity than the original. The animation and sound effects have been improved, and you can work your way up through five skill levels.

Unless you want to play till dawn, you'll have to save a good game in progress if you ever expect to pulverize that goose-stepping paperhanger. If you like shoot-em-ups, but want to do more than just guide your onscreen persona around with the joystick while jumping up and down on the fire button, take a shot at one of these long-playing sagas.

Compatibility: *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr* (Castle Wolfenstein)
Apple II (Beyond Castle Wolfenstein)
Format: *Disk*
Manufacturer: *Muse Software*

Flight Simulator/Flight Simulator II

For a truly singular experience, try flying a single-engine airplane across country some afternoon. *Flight Simulator*, the most popular game for the IBM PC, has everything except an air traffic controllers' strike. You'll sit in the cockpit of a Piper 181 Cherokee Archer. Outfitted with an altimeter, turn coordinator, artificial horizon indicator, and every other control, gauge, and dial you'd find on a real Cherokee, the easy-to-read instrument panel takes up the bottom half of the screen. The top half shows the pilot's view through the windshield. Outside, the color scheme is simple, mostly green ground with white lines marking roads, cities, and airports, plus blue sky. On the Commodore and Atari versions, the droning engine sounds so authentic that it's difficult to distinguish from airplanes that fly over your home while you're at the computer.

The author, Bruce Artwick, insured that the comprehensive flight manual clearly describes how and when to use the rudders, elevators, flaps, and ailerons. (Joystick control for turning, ascending, descending, and throttle are available on *Flight Simulator II* (the enhanced Apple, Atari, and Commodore 64 translation), though all the controls are activated from the keyboard on all systems.) You're guided step by step in the procedures from takeoff through landing, with details on how to read each gauge, dial, and flashing light.

Most rookies vault into the pilot's seat two seconds after looking up how to accelerate and raise the flaps for a takeoff. In the initial scene, you're at Chicago's Meig field, on a peninsula extending into Lake Michigan. Daredevil novices don't stay airborne for long, because flying a plane turns out to be a tricky process. You'll have to study the manual, then clutch it like a Bible as you taxi down the runway on practice sessions. (The pause feature allows unsure pilots to consult the manual without crashing into the nearby radio tower or splashing down in the lake.) Many such sessions will be required before you fully master the execution of banks, loops, descents, glides, and that all-important maneuver, landing.

From LAX to JFK, 80 airports and their surrounding scenery are only a flight away once you've earned your wings. (There's a brief pause when the program accesses the disk to load in new scenery from time to time.) You always start at Meig Field and follow the official-looking charts while in the air. Onboard, you've got a gyro-compass, magnetic compass, heading indicator, NAV radio, and VOR stations for navigational aid. Other gauges reflect air speed, fuel, flaps position, degree of bank, and oil pressure. With the Edit mode, you can select from 25 flight modes: easy, reality (harder, but more authentic), dusk, day, or bad weather flights. Or invent your own mode by fiddling with the dozens of parameters. The types of cloud layers, speed of surface and aerial wind, turbulence, even the season, can also be adjusted; any configuration can be saved to disk.

R ain or shine, the scenery continues to flash by, though at a relatively slow speed for veteran shoot-em-up fans. Remember, this is no starship! Sights include the Sears Tower in Chicago, Seattle's Space Needle, and Manhattan's World Trade Center and Statue of Liberty. You can switch the display to show the view from either side, or from the plane's tail, which sometimes helps get your bearings visually. Flip on the radar, and the wind-shield view is replaced by an aerial view of the ground directly below. You can press a key and zoom in for a close-up or out for a wide-angle view. Radar's handy for spotting distant airports and lining up with the runway.

It's even more important in the World War I aerial ace scenario, in which you trade the Cherokee for a bi-plane and head across a winding river into enemy terri-tory. The object is to bomb several factories, airports, and other enemy facilities, but you can scout before declar-ing war. Once you've hit that panic button, enemy planes close in on you, first visible as tiny dots that change color on the scope to indicate range and dif-ference in altitude. You've got a gunsight up front this time, and the space bar or fire button sprays any enemy biplane with machine-gun bullets. Five bombs are avail-able, and they whistle shrilly on the way to the ground before exploding below. The score is posted over the ra-dar on the right side of the panel, along with degree of

damage to your plane. Sometimes it will be crippled, forcing you to limp back home for repairs and more bombs. This is definitely one of the most adventurous shoot-em-up games around and makes it well worth anyone's effort to master the fine art of flying.

Veteran airline pilots say *Flight Simulator* handles like the real thing, and the manual claims it's useful in real flight-training areas like navigation, visual orientation, and illustration of flight fundamentals. All we know is that it's a lot of fun to bomb those munitions factories! (If your Apple or IBM has only 48K of RAM, you won't have access to all the features, but the best ones, and the World War I game, are available. The Commodore 64 tape version is even more limited.)

Compatibility: *Apple II, Atari, Commodore 64, IBM PC, IBM PCjr*
Format: *Cassette (64 only), Disk (all)*
Manufacturer: *Sublogic Corporation (Apple, Atari, 64); Microsoft Corporation (IBM)*

Spare Change

A game can be one of the best in the world, but that doesn't necessarily make it original. Almost every game in this book is similar to, or at least inspired by, some preceding game. Rarely does a game come along that looks and plays unlike any other. *Spare Change* is one.

The setting is a video arcade. You own this arcade, and it's stocked with token machines, a jukebox, a pay phone, a safe, a cash register, a popcorn machine, and of course, an arcade game—called *Zerk Show.* Your character is a white human shape that can be moved all around the screen.

Unfortunately, two of the characters from *Zerk Show* (the Zerks) have escaped from the machine and are crazily running around your arcade. Kind of like *Tron* in reverse, no? The Zerks, who look like barstools with legs, are stealing your tokens and throwing them into a piggy bank at the bottom-right corner of the screen. According to the instructions, they plan to save up enough tokens so

they can retire. But as we all know, old arcade games never die, they just get recycled into endless sequels. Stay tuned for *Ms. Zerk Show.*

Anyway, you're in a race with those wild and crazy Zerks to collect tokens. If they rip off five tokens and successfully toss them into the piggy bank before you stash 18 tokens in the *Zerk Show* coin box, you lose.

It's a token economy. There are plenty of ways to get them. First, you reach up and grab them out of the four token machines scattered about the screen. When a token machine is empty, you run to the cash register, grab some money, and fill the token machine with it. After the cash register is cleaned out, you can run over to the safe, take out a moneybag, and bring it to the cash register. And so on. You should also check the coin return on the pay phone from time to time. You never know when you might get lucky.

This book might have had a category for "Funny Games"—if there were any besides *Spare Change.* The Zerks are a computerized Laurel and Hardy. They run around like idiots, bumping into each other and dropping their tokens on the ground. If you put a token in the jukebox, it starts playing music and the Zerks drop everything and irresistibly start dancing as if they were in *The Best Little Whorehouse in Texas.* You can also distract them by putting a token in the popcorn machine (they watch it) or the pay phone (they start talking into it). The Zerks aren't just bumbling fools. They can throw tokens back and forth so you won't get them, and, occasionally, they'll even drop-kick a token into their piggy bank. But if you happen to steal a token they're carrying, they'll start hopping up and down with rage.

To complete the silliness, you're treated to an animated cartoon, starring the Zerks themselves, if you manage to get 18 tokens into the coin box. It also means you've managed to get by the first level. There are at least eight of these intermissions, all cute, funny, and spectacularly animated. The graphics are outstanding the whole way through.

Spare Change obviously makes a great game for young children, but thanks to the handy Zerk Control

Panel, everyone can enjoy it. This special screen allows you to adjust the levels of seven behavior characteristics of the Zerks: kicking, smarts, greed, accuracy, tossing, bumping, and anger. Once you crank up those Zerks, even experts will have a tough time keeping the arcade under control. *Spare Change* is lightweight entertainment, but sometimes that's just what we need.

Compatibility: Apple II, Atari, Commodore 64
Format: Disk
Manufacturer: Brøderbund Software, Inc.

Aztec

Most *Raiders of the Lost Ark*–inspired scenarios are found in adventure games like *Infidel* and *Mask of the Sun*. Only *Aztec* has successfully captured the cliff-hanging Indiana Jones spirit in an action-oriented game. As rumor has it (and doesn't rumor always?), Professor von Forster discovered the tomb of Quetzalcoatl in a vine-covered pyramid deep within the Yucatan jungle, but never emerged with its fabled treasure, a precious gold idol.

Set the difficulty level from 1 to 8 and clamber down the steps into the tomb. Inside, you'll see a room that may include up to three horizontal levels. Some are connected by stairs, others aren't. The pyramid consists of eight such rooms. Exit either side of the screen, and you'll enter another on that level. A different maze is generated at the start of the new game from the 32 possible mazes.

Surprisingly, your inch-high character is controlled from the keyboard rather than a joystick. Even more surprisingly, this player interface makes available a wide range of alternative moves which are easily executed after a few sessions. By pressing the proper keys you can run, walk, jump, shift from left to right, and wield various weapons. In each room, you'll spy boxes that can be opened by typing O. One holds the idol, but most contain skulls, the remains of von Forster, or weapons. Pistols, bullets, dynamite (you begin with three sticks),

and machetes may turn up. When a poisonous scorpion scuttles alongside your foot, you can slash down with the machete. For opponents your own size, the forward lunge with the blade is more effective. The only unfair element is that if you're armed with both machete and pistol, the computer restricts you to the blade. Occasional jaguars prowl the halls, and more ferocious killers—like crocodiles, giant spiders, even a tyrannosaurus rex or two—spring from nowhere at every turn. If hit by any of them, you'll lose one of your three strength points; lose them all, and you're a goner. Strength points can only be replenished by uncovering every heap of bones you pass until you find the one concealing a special elixir. If your character is killed, you can start over in the same maze or opt for a new one; a game can also be saved to disk.

Dynamite is useful when you land in a room with no exits. You can crouch on the floor, light a stick, and jump through the resulting hole into the next level. The trip gets hairier as you near the idol's hiding place. Aztec warriors in full battle array roam the halls, armed with blowguns that kill with a single hit. When you retrieve the treasure (the only disappointment in the game, because it's not shown but revealed with the phrase, "The Idol"), the warriors, dinosaurs, and other creatures jump right on your trail. Escaping with the idol is even more difficult than finding it, and the tempo and excitement escalate as a mad chase scene explodes. Retracing your path is tricky, and impossible if you blew a hole in the wrong wall or floor and blocked your only exit.

It's the little touches that make *Aztec* particularly absorbing. After you fall through a hole and are momentarily knocked out, little stars circle around your head. The elaborately embellished boxes resemble sacrificial altars, the detailed hi-res ornamentation of the Aztecs, and the high-caliber animation throughout combine to make this the closest thing to an action-oriented adventure game you'll ever set foot in. If looting the cultural heritage of a Third World nation is your idea of fun, *Aztec*'s your passport.

> **Compatibility:** *Apple II, Atari, Commodore 64*
> **Format:** *Disk*
> **Manufacturer:** *Datamost, Inc.*

Realm of Impossibility

Blending elements of action, strategy, and role-playing games, *Realm of Impossibility* features one of the best two-player versions ever offered in a computer game. Perhaps better-known under its former title, *Zombies*, this Mike Edwards game makes you face your worst fears—the undead.

But first the plot: Wistrix the Evil has stolen the seven crowns of the Middle Kingdom and stashed each in a different dungeon. You've got to run your nimbly animated character through each dungeon, grab the crown, and return to your starting place. Blocking your way both coming and going is a pack of zombies, spiders, snakes, and deadly orbs who reduce your hit point factor each time they touch you. And you can't kill them!

The only weapons at your disposal are holy crosses and magic spells. Press the fire button to drop a cross. A little black cross appears at your feet. The undead get stuck on them briefly, and you have time to run away. But you can get stuck on the crosses, too, so you have to watch your step after scattering them around a roomful of zombies. Scrolls are found in some rooms, usually surrounded by the monsters. Manage to touch one and you'll either get extra hit points or a magic spell. One spell allows you to freeze every creature in its tracks, another confuses them so they can't catch you, and the third affords complete protection from their bites.

Spells are invoked by standing still, hitting the fire button, and moving the joystick in the appropriate direction for the spell you possess. If you're in a jam, you can just jerk back on the stick, and the first spell you found will be cast. There's a football feel to the chase scenes, like broken-field running against a team of hyperactive monsters. Dodging the creatures while tossing crosses in their path will get you past most rooms, but the spells are

required in those places spilling over with unholy flesh-eaters. It's like a barbeque when you do get killed. Your character falls flat on the ground, then goes up in smoke, leaving just a pile of ashes behind.

You can explore the dungeons in any order, selecting from a menu at the start of each game. They lead into richly colored rooms of varied architecture. The Stygian Crypt's vivid oranges contrast with the turquoise river flowing through some rooms, while the Abyss level's narrow footpath over the precipice is done in somber grays and purples. Geometric patterns lend a unique three-dimensional look to the dungeons. *Realm of Impossibility* presents another kind of challenge, optical-illusion-like walls and doors that make it difficult to figure out where the doors are, even when you're standing right in front of them. It's an unsettling predicament, and the monsters don't give you much time to analyze the situation. Fortunately, the pause feature does. You can always check your hit points, spells, and current and high scores on the status bar below.

Each room fills an entire screen, and you've got to find the entrance to the next room. With dozens of false doors and halls, this isn't easy. You'll know you've found the right door when you push against it and the next room scrolls horizontally and takes over the screen. The door won't reopen on the way out unless you've got the crown from that dungeon. Before you step into the next room, all the zombies are blindly running into walls, or each other, but they and the other creatures go straight for your throat as soon as you cross the threshold.

Spells last only four seconds, so you've got to freeze a roomful of obscenely wriggling snakes, dash in for the scroll or crown, and leave a trail of crosses as they recover and resume the chase. You'll hear a silver bell tingling off the seconds. Other novel sound effects enhance the game's overall play value. But it's the two-player version that really makes *Realm of Impossibility* rise from the dead. Characters representing both players are onscreen simultaneously, controlled with individual joysticks. But instead of competing, as in most two-player games, you have to cooperate. A door can't be opened unless both

players' characters push against it together. One player can dupe the zombies into chasing him or her, while the other grabs the crown or a magic scroll. If one gets killed, the other can resurrect the dead one by touching the ashes. High scores for one- and two-player versions under easy, moderate, and hard difficulty settings are saved automatically.

This, and the game's excellent graphics, animation, and sound, make *Realm of Impossibility* topnotch entertainment.

Compatibility: *Atari, Commodore 64*
Format: *Disk*
Manufacturer: *Electronic Arts*

Appendix

Manufacturers'
Addresses

Manufacturers' Addresses

Access Software, Inc.
925 East 900 South
Salt Lake City, UT 84105
(801) 532-1134

Activision, Inc.
2350 Bayshore Frontage Road
Mountain View, CA 94043
(415) 960-0410

Adventure International
P.O. Box 3435
155 Sabal Palm Drive
Longwood, FL 32750
(305) 862-6917

American Eagle Software
P.O. Box 46080
Lincolnwood, IL 60646
(312) 792-1227

Atari, Inc.
P.O. Box 3427
Sunnyvale, CA 94088-3427
(408) 745-2000

Big Five Software
P.O. Box 9078-189
Van Nuys, CA 91405
(818) 782-6861

Bluechip Software
6744 Eton Avenue
Canoga Park, CA 91303
(818) 346-0730

Brøderbund Software, Inc.
17 Paul Drive
San Rafael, CA 94903
(415) 479-1170

CBS Software
One Fawcett Place
Greenwich, CT 06836
(203) 622-2500

Coleco Industries, Inc.
999 Quaker Lane South
West Hartford, CT 06111
(203) 725-6000

Commodore Business Machines,
Inc.
1200 Wilson Drive
West Chester, PA 19380
(215) 431-9100

Creative Software
960 Hamlin Court
Sunnyvale, CA 94089
(408) 745-1655

Datamost, Inc.
19821 Nordhoff Street
Northridge, CA 91325
(818) 709-1202

Datasoft, Inc.
19808 Nordhoff Place
Chatsworth, CA 91311
(818) 701-5161

Electronic Arts
2755 Campus Drive
San Mateo, CA 94403
(415) 571-7171

Epyx, Inc.
1043 Kiel Court
Sunnyvale, CA 94089
(408) 745-0700

First Star Software, Inc.
18 East 41st Street
New York City, NY 10017
(212) 532-4666

Five Star Software
P.O. Box 631
Elk Grove Village, IL 60007
(312) 952-8088

FTL Games
7907 Ostrow Street, Suite F
San Diego, CA 92111
(619) 279-5711

Gamestar, Inc.
1302 State Street
Santa Barbara, CA 93101
(805) 963-3487

Hayden Software Company, Inc.
600 Suffolk Street
Lowell, MA 01854
(617) 937-0200

Imagic
2400 Bayshore Frontage Road
Mountain View, CA 94043
(415) 940-6030

Infocom, Inc.
55 Wheeler Street
Cambridge, MA 02138
(617) 492-1031

International Business Machines, Inc.
P.O. Box 1328
Boca Raton, FL 33432
(305) 241-6007

Micro Lab
2699 Skokie Valley Road
Highland Park, IL 60035
(312) 433-7550

Microsoft Corporation
10700 Northup Way
Bellevue, WA 98004
(206) 828-8080

Monogram, Inc.
8295 S. La Cienaga Blvd.
Ingelwood, CA 90301
(213) 215-0529

Muse Software
347 N. Charles Street
Baltimore, MD 21201
(301) 659-7212

Origin Systems
340 Harvey Road
Manchester, NH 03103
(603) 644-3360

Parker Brothers
50 Dunham Road
Beverly, MA 01915
(617) 927-7600

Penguin Software
830 Fourth Avenue
Geneva, IL 60134
(312) 232-1984

Reston Publishing Company
11480 Sunset Hills Road
Reston, VA 22090
(703) 437-8900

Scarborough Systems, Inc.
55 South Broadway
Tarrytown, NY 10591
(914) 332-4545

Scholastic Software
730 Broadway
New York City, NY 10003
(212) 505-3410

Screenplay
1095 Airport Road
Minden, NV 89423
(702) 782-9731

Sierra On-Line, Inc.
P.O. Box 485
Coarsegold, CA 93614
(209) 683-6858

Sirius Software
10364 Rockingham Road
Sacramento, CA 95827
(916) 366-1195

Sir-Tech Software, Inc.
6 Main Street
Ogdensburg, NY 13669
(315) 393-6633

Spinnaker Software
One Kendall Square
Cambridge, MA 01239
(617) 494-1200

Strategic Simulations, Inc.
883 Stierlin Road
Bldg. A-200
Mountain View, CA 94043-1983
(415) 964-1353

Sublogic Corporation
713 Edgebrook Drive
Champaign, IL 61820
(217) 359-8482

Synapse Software
5221 Central Avenue, #205
Richmond, CA 94804
(415) 527-7751

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